

# Inventn Search

TATE 09/888, 997

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(FILE 'HOME' ENTERED AT 16:54:03 ON 20 NOV 2002)

FILE 'HCAPLUS' ENTERED AT 16:54:11 ON 20 NOV 2002

E AYLWARD J/AU

L1 34 S E3, E5, E7-10

L2 5 S L1 AND ?INGENAN?

SELECT RN L2 1-5

*5 cites*  
*Selecting Reg #'s from citations*

FILE 'REGISTRY' ENTERED AT 16:55:59 ON 20 NOV 2002

L3 47 S E13-59

SAVE TEMP L3 TAT997I/A

*47 cpds in L2 citations*

FILE 'HCAPLUS' ENTERED AT 16:56:38 ON 20 NOV 2002

L4

*5 S L2 AND L3 / 5 citations w/ 47 cpds displayed*

# Inventor Search

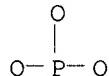
DATE 09/888,997

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L4 ANSWER 1 OF 5 HCPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 2002:122803 HCPLUS  
 DOCUMENT NUMBER: 136:177959  
 TITLE: Diterpenes obtained from Euphorbiaceae for the treatment of prostate cancer  
 INVENTOR(S): **Aylward, James Harrison; Parsons, Peter Gordon**  
 PATENT ASSIGNEE(S): Peplin Research Biotech Ltd., Australia  
 SOURCE: PCT Int. Appl., 120 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002011743	A2	20020214	WO 2001-AU966	20010807
WO 2002011743	A3	20020328		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2001079493	A5	20020218	AU 2001-79493	20010807
PRIORITY APPLN. INFO.:			AU 2000-9231	A 20000807
			WO 2001-AU966	W 20010807

OTHER SOURCE(S): MARPAT 136:177959  
 AB The invention discloses a chem. agent of the diterpene family obtained from a member of the Euphorbiaceae family of plants for use in the treatment of prophylaxis of prostate cancer or a related cancer or condition.  
 IT 13598-36-2D, Phosphonic acid, alkylidenebis- derivs.  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (Bisphosphonate; diterpenes from Euphorbiaceae for treatment of prostate cancer)  
 RN 13598-36-2 HCPLUS  
 CN Phosphonic acid (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



\*\*\* FRAGMENT DIAGRAM IS INCOMPLETE \*\*\*  
 IT 1984-15-2 15663-27-1, Cisplatin 38937-66-5  
 67707-88-4, Ingenane 67707-88-4D,  
 Ingenane, derivs. 75567-37-2 75567-37-2D,  
 derivs. 75567-38-3 75567-38-3D, derivs.  
 82425-35-2 82425-35-2D, derivs. 210108-85-3,  
 Jatrophane 1 210108-85-3D, Jatrophane 1, derivs.  
 210108-86-4, Jatrophane 2 210108-86-4D, Jatrophane 2,

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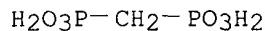
derivs. 210108-87-5, Jatrophane 3 210108-87-5D,  
Jatrophane 3, derivs. 210108-88-6, Jatrophane 4  
210108-88-6D, Jatrophane 4, derivs. 210108-89-7,  
Jatrophane 5 210108-89-7D, Jatrophane 5, derivs.  
210108-90-0, Jatrophane 6 210108-90-0D, Jatrophane 6,  
derivs. 210108-91-1, Pepluane 210108-91-1D, Pepluane,  
derivs.

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)

(diterpenes from Euphorbiaceae for treatment of prostate cancer)

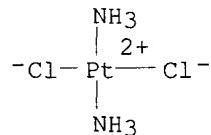
RN 1984-15-2 HCPLUS

CN Phosphonic acid, methylenebis- (9CI) (CA INDEX NAME)



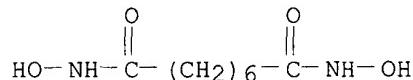
RN 15663-27-1 HCPLUS

CN Platinum, diamminedichloro-, (SP-4-2)- (9CI) (CA INDEX NAME)



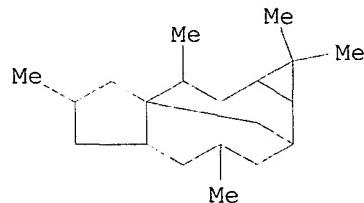
RN 38937-66-5 HCPLUS

CN Octanediamide, N,N'-dihydroxy- (9CI) (CA INDEX NAME)



RN 67707-88-4 HCPLUS

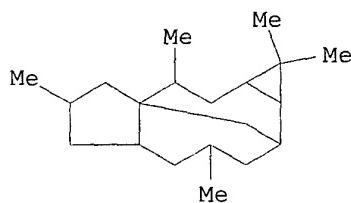
CN 1H-2,8a-Methanocyclopenta[a]cyclopropa[e]cyclodecene, dodecahydro-  
1,1,4,7,9-pentamethyl-, (1aS,2R,4R,5aR,7R,8aR,9R,10aR)- (9CI) (CA INDEX  
NAME)



RN 67707-88-4 HCPLUS

CN 1H-2,8a-Methanocyclopenta[a]cyclopropa[e]cyclodecene, dodecahydro-  
1,1,4,7,9-pentamethyl-, (1aS,2R,4R,5aR,7R,8aR,9R,10aR)- (9CI) (CA INDEX  
NAME)

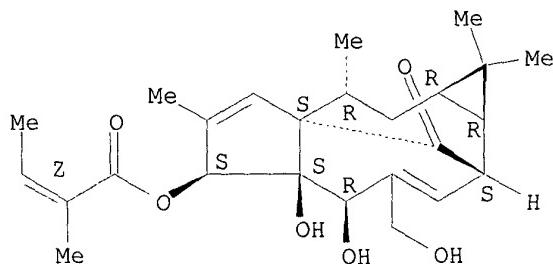
TATE 09/888,997



RN 75567-37-2 HCPLUS

CN 2-Butenoic acid, 2-methyl-, (1aR,2S,5R,5aS,6S,8aS,9R,10aR)-1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-4-(hydroxymethyl)-1,1,7,9-tetramethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropa[e]cyclodecen-6-yl ester, (2Z)- (9CI) (CA INDEX NAME)

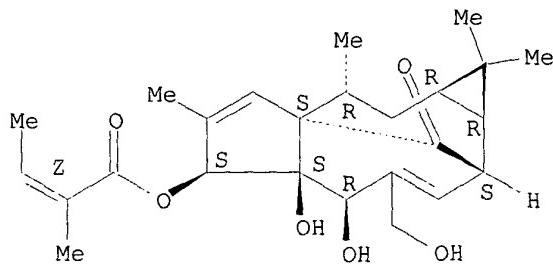
Absolute stereochemistry. Rotation (+).  
Double bond geometry as shown.



RN 75567-37-2 HCPLUS

CN 2-Butenoic acid, 2-methyl-, (1aR,2S,5R,5aS,6S,8aS,9R,10aR)-1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-4-(hydroxymethyl)-1,1,7,9-tetramethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropa[e]cyclodecen-6-yl ester, (2Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).  
Double bond geometry as shown.

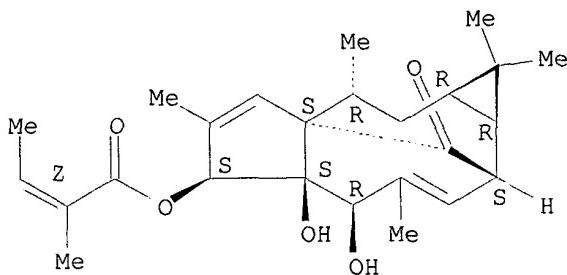


RN 75567-38-3 HCPLUS

CN 2-Butenoic acid, 2-methyl-, (1aR,2S,5R,5aS,6S,8aS,9R,10aR)-1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-1,1,4,7,9-pentamethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropa[e]cyclodecen-6-yl ester, (2Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.

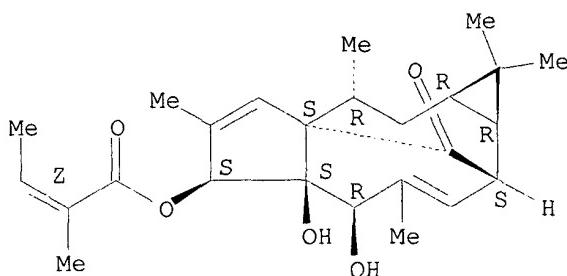


RN 75567-38-3 HCPLUS

CN 2-Butenoic acid, 2-methyl-, (1aR,2S,5R,5aS,6S,8aS,9R,10aR)-1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-1,1,4,7,9-pentamethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropane[e]cyclodecen-6-yl ester, (2Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.

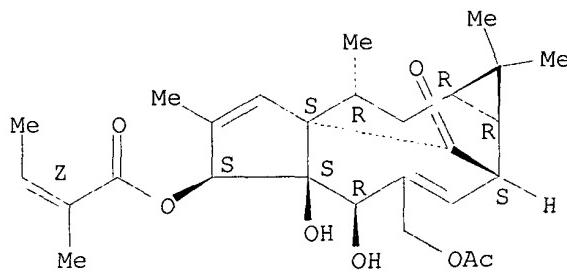


RN 82425-35-2 HCPLUS

CN 2-Butenoic acid, 2-methyl-, (1aR,2S,5R,5aS,6S,8aS,9R,10aR)-4-[(acetoxy)methyl]-1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-1,1,7,9-tetramethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropane[e]cyclodecen-6-yl ester, (2Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

Double bond geometry as shown.



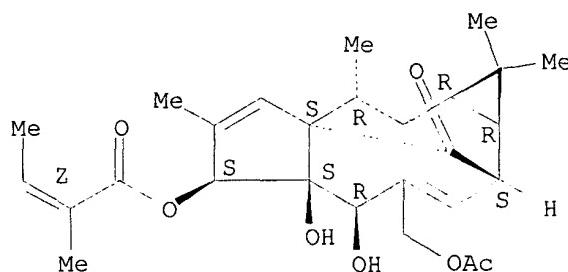
RN 82425-35-2 HCPLUS

CN 2-Butenoic acid, 2-methyl-, (1aR,2S,5R,5aS,6S,8aS,9R,10aR)-4-[(acetoxy)methyl]-1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-1,1,7,9-tetramethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropane[e]cyclodecen-6-

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yl ester, (2Z)- (9CI) (CA INDEX NAME)

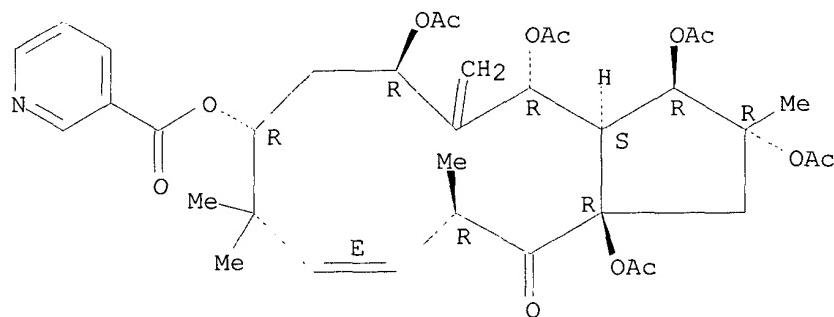
Absolute stereochemistry. Rotation (+).  
Double bond geometry as shown.



RN 210108-85-3 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6R,8R,10E,12R,13aR)-2,3,4,6,13a-pentakis(acetoxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-2,9,9,12-tetramethyl-5-methylene-13-oxo-1H-cyclopentacyclododecen-8-yl ester (9CI)  
(CA INDEX NAME)

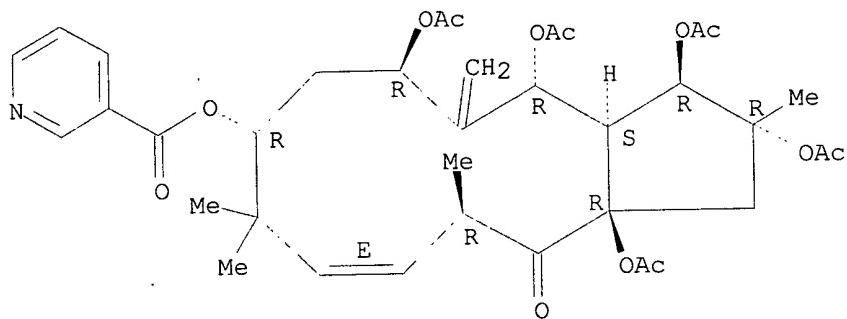
Absolute stereochemistry. Rotation (-).  
Double bond geometry as described by E or Z.



RN 210108-85-3 HCPLUS

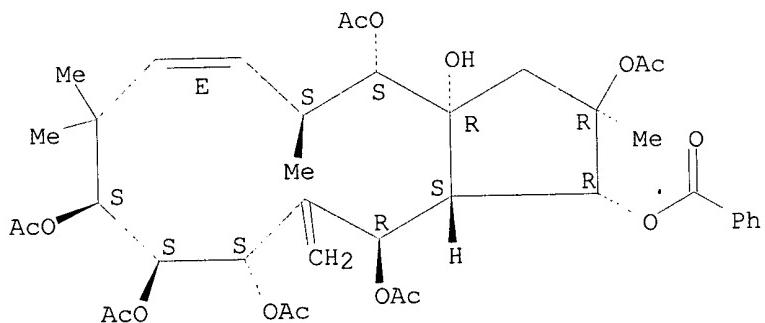
CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6R,8R,10E,12R,13aR)-2,3,4,6,13a-pentakis(acetoxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-2,9,9,12-tetramethyl-5-methylene-13-oxo-1H-cyclopentacyclododecen-8-yl ester (9CI)  
(CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
Double bond geometry as described by E or Z.



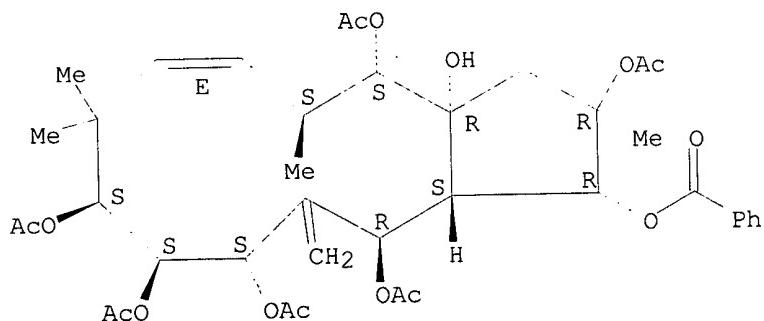
RN 210108-86-4 HCPLUS  
 CN 3aH-Cyclopentacyclododecene-1,2,3a,4,9,10,11,13-octol,  
 1,2,3,4,5,8,9,10,11,12,13,13a-dodecahydro-2,5,8,8-tetramethyl-12-methylene-  
 , 2,4,9,10,11,13-hexaacetate 1-benzoate, (1R,2R,3aR,4S,5S,6E,9S,10S,11S,13  
 R,13aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
 Double bond geometry as described by E or Z.



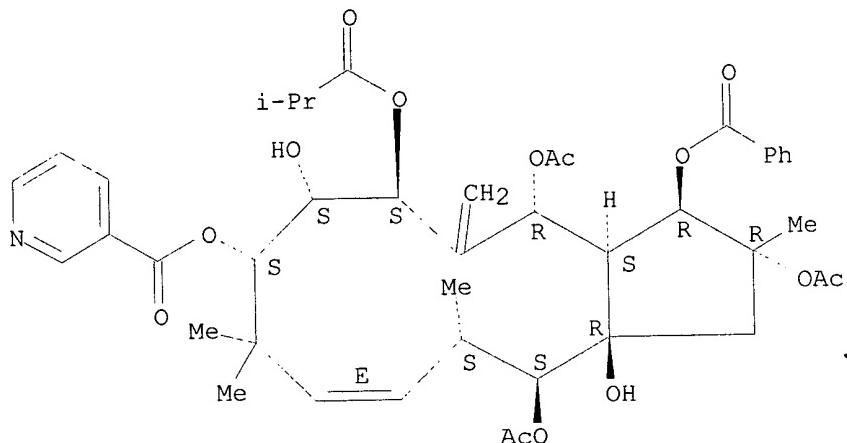
RN 210108-86-4 HCPLUS  
 CN 3aH-Cyclopentacyclododecene-1,2,3a,4,9,10,11,13-octol,  
 1,2,3,4,5,8,9,10,11,12,13,13a-dodecahydro-2,5,8,8-tetramethyl-12-methylene-  
 , 2,4,9,10,11,13-hexaacetate 1-benzoate, (1R,2R,3aR,4S,5S,6E,9S,10S,11S,13  
 R,13aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
 Double bond geometry as described by E or Z.



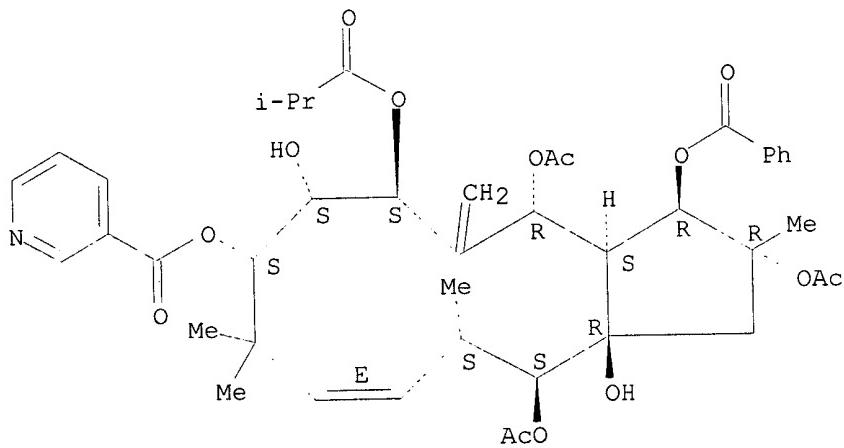
RN 210108-87-5 HCPLUS  
 CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-2,4,13-  
 tris(acetyloxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-  
 7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-6-(2-methyl-1-oxopropoxy)-  
 1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).  
 Double bond geometry as described by E or Z.



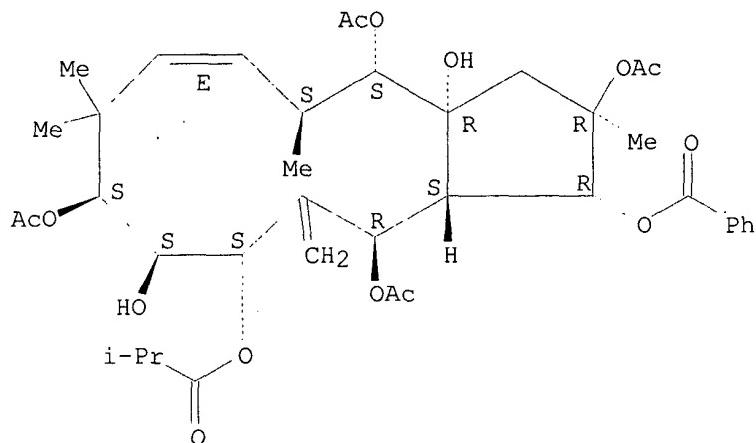
RN 210108-87-5 HCPLUS  
 CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-2,4,13-  
 tris(acetyloxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-  
 7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-6-(2-methyl-1-oxopropoxy)-  
 1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).  
 Double bond geometry as described by E or Z.



RN 210108-88-6 HCPLUS  
 CN Propanoic acid, 2-methyl-, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-  
 2,4,8,13-tetrakis(acetyloxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-  
 dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-1H-  
 cyclopentacyclododecen-6-yl ester (9CI) (CA INDEX NAME)

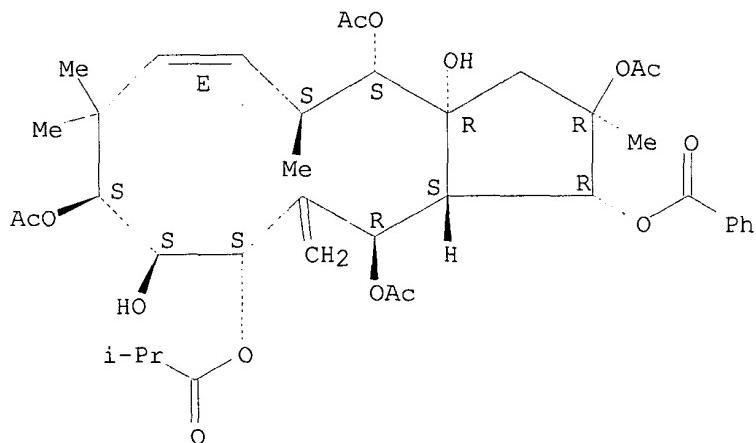
Absolute stereochemistry. Rotation (+).  
 Double bond geometry as described by E or Z.



RN 210108-88-6 HCPLUS

CN Propanoic acid, 2-methyl-, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-2,4,8,13-tetrakis(acetoxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-1H-cyclopentacyclododecen-6-yl ester (9CI) (CA INDEX NAME)

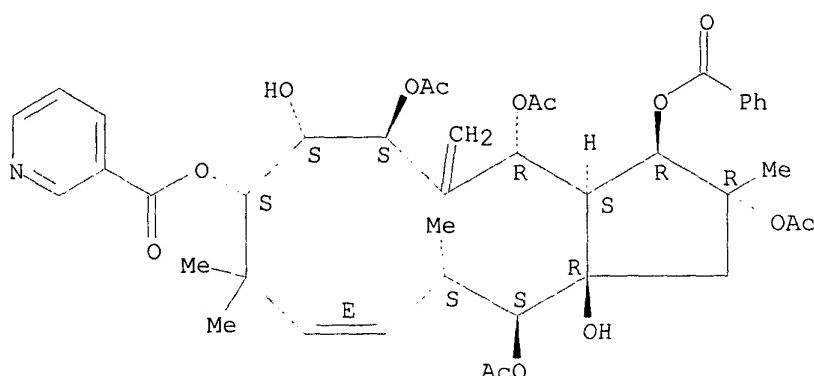
Absolute stereochemistry. Rotation (+).  
 Double bond geometry as described by E or Z.



RN 210108-89-7 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-2,4,6,13-tetrakis(acetoxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).  
 Double bond geometry as described by E or Z.

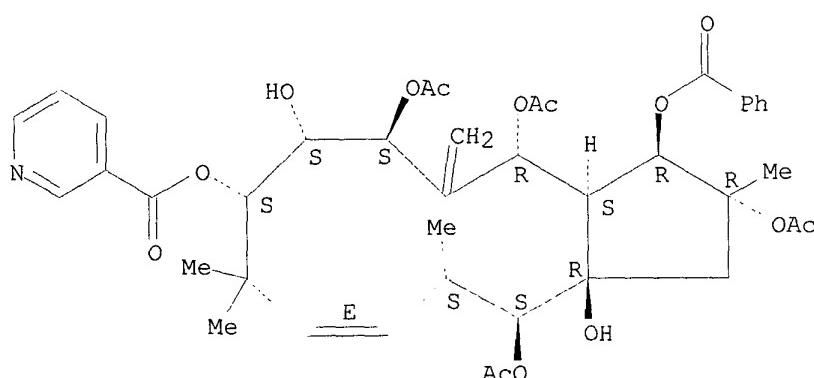


RN 210108-89-7 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-  
2,4,6,13-tetrakis(acetoxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-  
dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-1H-  
cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

Double bond geometry as described by E or Z.

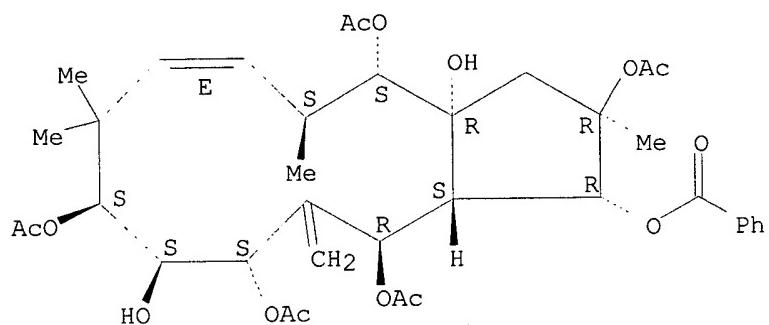


RN 210108-90-0 HCPLUS

CN 3aH-Cyclopentacyclododecene-1,2,3a,4,9,10,11,13-octol,  
1,2,3,4,5,8,9,10,11,12,13,13a-dodecahydro-2,5,8,8-tetramethyl-12-methylene-  
2,4,9,11,13-pentaacetate 1-benzoate, (1R,2R,3aR,4S,5S,6E,9S,10S,11S,13R,  
13aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.

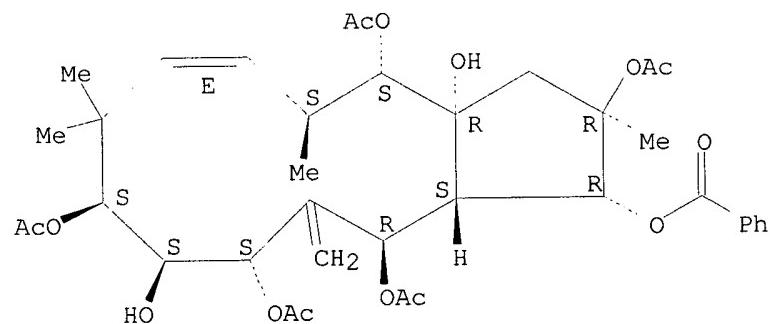


RN 210108-90-0 HCAPLUS

CN 3aH-Cyclopentacyclododecene-1,2,3a,4,9,10,11,13-octol,  
1,2,3,4,5,8,9,10,11,12,13,13a-dodecahydro-2,5,8,8-tetramethyl-12-methylene-  
, 2,4,9,11,13-pentaacetate 1-benzoate, (1R,2R,3aR,4S,5S,6E,9S,10S,11S,13R,  
13aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

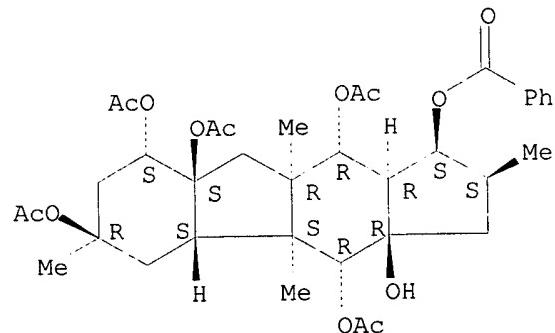
Double bond geometry as described by E or Z.



RN 210108-91-1 HCAPLUS

CN Cyclopenta[b]fluorene-1,3a,4,6,8,8a,10(1H,4H)-heptol, dodecahydro-  
2,4a,6,9a-tetramethyl-, 4,6,8,8a,10-pentaacetate 1-benzoate,  
(1S,2S,3aR,4R,4aS,4bS,6R,8R,8aR,9aR,10R,10aR)- (9CI) (CA INDEX NAME)

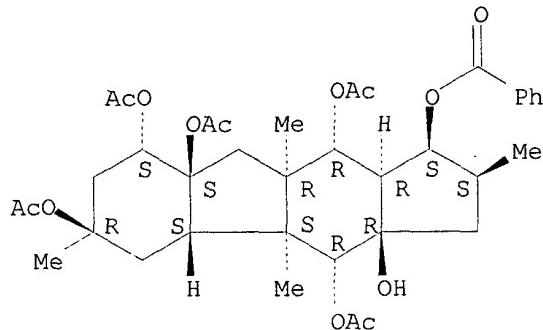
Absolute stereochemistry.



RN 210108-91-1 HCAPLUS

CN Cyclopenta[b]fluorene-1,3a,4,6,8,8a,10(1H,4H)-heptol, dodecahydro-2,4a,6,9a-tetramethyl-, 4,6,8,8a,10-pentaacetate 1-benzoate, (1S,2S,3aR,4R,4aS,4bS,6R,8R,8aR,9aR,10R,10aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IC ICM A61K035-78

ICS A61K031-455; A61K031-22; A61P035-00

CC 1-6 (Pharmacology)

Section cross-reference(s): 11

ST prostate cancer treatment diterpene Euphorbiaceae

IT Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(PSA; diterpenes from Euphorbiaceae for treatment of prostate cancer)

IT Bone

(bone-seeking agent; diterpenes from Euphorbiaceae for treatment of prostate cancer)

IT Antibodies

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(conjugates; diterpenes from Euphorbiaceae for treatment of prostate cancer)

IT Acalypha

Acidoton

Actinostemon

Adelia

Adenocline

Adenocrepis

Adenophaedra

Adisca

Agrostistachys

Alchornea

Alchorneopsis

Alcinaeanthus

Alcoceria

Aleurites

Amanoa

Andrachne

Angostyles

Anisophyllum

Antidesma

Antitumor agents

Aphora

Aporosa

Aporosella

Argythamnia

Astrococcus  
Astrogyne  
B cell (lymphocyte)  
Baccaurea  
Baliospermum  
Bernardia  
Beyeriopsis  
Bischofia  
Blachia  
Blumeodondron  
Bonania  
Bradleia  
Breynia  
Breyniopsis  
Briedelia  
Buraeavia  
Caperonia  
Caryodendron  
Celianella  
Cephalocroton  
Chaenotheca  
Chaetocarpus  
Cheilosa  
Chiropetalum  
Choriophyllum  
Cicca  
Claoxylon  
Cleidion  
Cleistanthus  
Clutia  
Cnesmone  
Cnidoscolus  
Coccoceras  
Codiaeum  
Coelodiscus  
Conami  
Conceveiba  
Conceveibastrum  
Conceveibum  
Corythea  
Croizatia  
Croton  
Crotonopsis  
Crozophora  
Cubanthus  
Cunuria  
Dactylostemon  
Dalechampia  
Dendritic cell  
Dendrocousinsia  
Diasperus  
Didymocistus  
Dimorphocalyx  
Discocarpus  
Ditaxis  
Dodecastigma  
Drug delivery systems  
Drug targeting  
Drypetes  
Dysopsis

Elateriospermum  
Endadenium  
Endospermum  
Erismanthus  
Erythrocarpus  
Erythrocilus  
Eumecanthus  
Euphorbia  
Euphorbia aaron-rossii  
Euphorbia abbreviata  
Euphorbia acuta  
Euphorbia alatocaulis  
Euphorbia albicaulis  
Euphorbia albomarginata  
Euphorbia aliceae  
Euphorbia alta  
Euphorbia anacampseros  
Euphorbia andromedae  
Euphorbia angusta  
Euphorbia anthonyi  
Euphorbia antiquensis  
Euphorbia apocynifolia  
Euphorbia arabica  
Euphorbia ariensis  
Euphorbia arizonica  
Euphorbia arkansana  
Euphorbia arteagae  
Euphorbia arundeliana  
Euphorbia astroites  
Euphorbia atrococca  
Euphorbia baselices  
Euphorbia batabanensis  
Euphorbia bergeri  
Euphorbia bermudiana  
Euphorbia bicolor  
Euphorbia biformis  
Euphorbia bifurcata  
Euphorbia bilobata  
Euphorbia biramensis  
Euphorbia biuncialis  
Euphorbia blepharostipula  
Euphorbia blodgettii  
Euphorbia boerhaavioides  
Euphorbia boliviana  
Euphorbia bracei  
Euphorbia brachiata  
Euphorbia brachycera  
Euphorbia brandegeei  
Euphorbia brittonii  
Euphorbia caesia  
Euphorbia calcicola  
Euphorbia campestris  
Euphorbia candelabrum  
Euphorbia capitellata  
Euphorbia carmenensis  
Euphorbia carunculata  
Euphorbia cayensis  
Euphorbia celastroides  
Euphorbia chalicophila  
Euphorbia chamaerrhodos

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Euphorbia chamaesula  
Euphorbia chiapensis  
Euphorbia chiogenoides  
Euphorbia cinerascens  
Euphorbia clarionensis  
Euphorbia colimae  
Euphorbia colorata  
Euphorbia commutata  
Euphorbia consoquitiae  
Euphorbia convolvuloides  
Euphorbia corallifera  
Euphorbia creberrima  
Euphorbia crenulata  
Euphorbia cubensis  
Euphorbia cuspidata  
Euphorbia cymbiformis  
Euphorbia darlingtonii  
Euphorbia defoliata  
Euphorbia degeneri  
Euphorbia deltoidea  
Euphorbia dentata  
Euphorbia depressa  
Euphorbia dictyosperma  
Euphorbia dioeca  
Euphorbia discoidalis  
Euphorbia dorsiventralis  
Euphorbia drummondii  
Euphorbia duclouxii  
Euphorbia dussii  
Euphorbia eanophylla  
Euphorbia eggersii  
Euphorbia eglandulosa  
Euphorbia elata  
Euphorbia enalla  
Euphorbia eriogonoides  
Euphorbia eriophylla  
Euphorbia esculaeformis  
Euphorbia espirituensis  
Euphorbia esula  
Euphorbia excisa  
Euphorbia exclusa  
Euphorbia exstipitata  
Euphorbia exstipulata  
Euphorbia fendleri  
Euphorbia filicaulis  
Euphorbia filiformis  
Euphorbia florida  
Euphorbia fruticulosa  
Euphorbia garberi  
Euphorbia gaumerii  
Euphorbia gerardiana  
Euphorbia geyeri  
Euphorbia glyptosperma  
Euphorbia gorgonis  
Euphorbia gracilior  
Euphorbia gracillima  
Euphorbia gradii  
Euphorbia graminea  
Euphorbia grisea  
Euphorbia guadalajarana

Euphorbia guanarensis  
Euphorbia gymnadenia  
Euphorbia haematantha  
Euphorbia hedyotoides  
Euphorbia heldrichii  
Euphorbia helenae  
Euphorbia helleri  
Euphorbia helwigii  
Euphorbia henricksonii  
Euphorbia heterophylla  
Euphorbia hexagona  
Euphorbia hexagonoides  
Euphorbia hinkleyorum  
Euphorbia hintonii  
Euphorbia hirta  
Euphorbia hirtula  
Euphorbia hooveri  
Euphorbia humistrata  
Euphorbia hypericifolia  
Euphorbia inundata  
Euphorbia involuta  
Euphorbia jaliscensis  
Euphorbia jejuna  
Euphorbia johnstonii  
Euphorbia juttae  
Euphorbia knuthii  
Euphorbia lasiocarpa  
Euphorbia lata  
Euphorbia latazi  
Euphorbia latericolor  
Euphorbia laxiflora  
Euphorbia lecheoides  
Euphorbia ledienii  
Euphorbia leucophylla  
Euphorbia lineata  
Euphorbia linguiformis  
Euphorbia longecornuta  
Euphorbia longepetiolata  
Euphorbia longeramosa  
Euphorbia longinsulicola

(diterpenes from Euphorbiaceae for treatment of prostate cancer)

IT Euphorbia longipila  
Euphorbia lupulina  
Euphorbia lurida  
Euphorbia lycooides  
Euphorbia macropodooides  
Euphorbia macvaughiana  
Euphorbia manca  
Euphorbia mandoniana  
Euphorbia mangleti  
Euphorbia mango  
Euphorbia marylandica  
Euphorbia mayana  
Euphorbia melanadenia  
Euphorbia melanocarpa  
Euphorbia meridensis  
Euphorbia mertonii  
Euphorbia mexiae  
Euphorbia microcephala  
Euphorbia microclada

Euphorbia micromera  
Euphorbia misella  
Euphorbia missurica  
Euphorbia montana  
Euphorbia montereyana  
Euphorbia multicaulis  
Euphorbia multiformis  
Euphorbia multinodis  
Euphorbia multiseta  
Euphorbia muscicola  
Euphorbia neomexicana  
Euphorbia nephraenia  
Euphorbia niqueroana  
Euphorbia oaxacana  
Euphorbia occidentalis  
Euphorbia odontadenia  
Euphorbia olivacea  
Euphorbia olowaluana  
Euphorbia ophthalmica  
Euphorbia ovata  
Euphorbia pachypoda  
Euphorbia pachyrhiza  
Euphorbia padifolia  
Euphorbia palmeri  
Euphorbia paludicola  
Euphorbia paralias  
Euphorbia parishii  
Euphorbia parryi  
Euphorbia parviflora  
Euphorbia paxiana  
Euphorbia pediculifera  
Euphorbia peplidion  
Euphorbia peploides  
Euphorbia peplus  
Euphorbia pergamena  
Euphorbia perlignea  
Euphorbia petaloidea  
Euphorbia petrina  
Euphorbia picachensis  
Euphorbia pilosula  
Euphorbia pinariona  
Euphorbia pinctorum  
Euphorbia pionosperma  
Euphorbia platysperma  
Euphorbia plicata  
Euphorbia poeppigii  
Euphorbia poliosperma  
Euphorbia polycarpa  
Euphorbia polycnemoides  
Euphorbia polyphylla  
Euphorbia portoricensis  
Euphorbia portulacoides  
Euphorbia portulana  
Euphorbia presliai  
Euphorbia prostrata  
Euphorbia pteroneura  
Euphorbia pycnanthema  
Euphorbia ramosa  
Euphorbia rapulum  
Euphorbia remyi

Euphorbia retroscabra  
Euphorbia revoluta  
Euphorbia rivularis  
Euphorbia robusta  
Euphorbia rubida  
Euphorbia rubrosperma  
Euphorbia rupicola  
Euphorbia sammartensis  
Euphorbia saxatilis  
Euphorbia schizoloba  
Euphorbia sclerocyathium  
Euphorbia scopulorum  
Euphorbia senilis  
Euphorbia serpyllifolia  
Euphorbia serrula  
Euphorbia setiloba  
Euphorbia sonorae  
Euphorbia soobyi  
Euphorbia sparsiflora  
Euphorbia sphaerosperma  
Euphorbia spruceana  
Euphorbia stellata  
Euphorbia subcoerulea  
Euphorbia submammilaris  
Euphorbia subpeltata  
Euphorbia subpubens  
Euphorbia subreniforme  
Euphorbia subtrifoliata  
Euphorbia succedanea  
Euphorbia syphilitica  
Euphorbia tamaulipasana  
Euphorbia telephioides  
Euphorbia tenuissima  
Euphorbia tetrapora  
Euphorbia tirucalli  
Euphorbia tomentella  
Euphorbia tomentosa  
Euphorbia torralbasi  
Euphorbia tovarensis  
Euphorbia trachysperma  
Euphorbia tricolor  
Euphorbia troyana  
Euphorbia tuerckheimii  
Euphorbia turczaninowii  
Euphorbia umbellulata  
Euphorbia undulata  
Euphorbia vermiformis  
Euphorbia versicolor  
Euphorbia villifera  
Euphorbia violacea  
Euphorbia whitei  
Euphorbia xanti  
Euphorbia xylopoda  
Euphorbia yayalesia  
Euphorbia yungasensis  
Euphorbia zeravschanica  
Euphorbia zinniiflora  
Euphorbiaceae  
Euphorbiodendron  
Excoecaria

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Fluggaea  
Garcia  
Gavarretia  
Gelonium  
Gitara  
Givotia  
Glochidion  
Glochidionopsis  
Glycydendron  
Gymnanthes  
Gymnosporia  
Haematospermum  
Hendecandras  
Hevea  
Hieronima  
Hippocrapandra  
Homalanthus  
Hymenocardia  
Immunostimulants  
Janipha  
Jatropho  
Julocroton  
Lasiocroton  
Leiocarpus  
Leonardia  
Lepidanthus  
Leucocroton  
Mabea  
Macaranga  
Macrocroton  
Mallotus (plant)  
Manihot  
Mappa  
Maprounea  
Melanthesa  
Mercurialis  
Mettenia  
Micrandra  
Microdesmis  
Microelus  
Microstachys  
Monadenium  
Mozinna  
Neoscortechinia  
Omalanthus  
Omphalea  
Ophellantha  
Orbicularia  
Ostodes  
Oxydectes  
Palenga  
Pantadenia  
Paradrypetes  
Pausandra  
Pedilanthus  
Pera  
Peridium  
Petalostigma  
Phyllanthus  
Picrodendron

Pierardia  
Pilinophytum  
Pimeleodendron  
Piranhea  
Platygyna  
Plukenetia  
Podocalyx  
Poinsettia  
Poraresia  
Prosartema  
Pseudanthus  
Pycnocoma  
Quadrasia  
Reverchonia  
Richeria  
Richeriella  
Ricinella  
Ricinocarpos  
Rottlera  
Sagotia  
Sandwithia  
Sapium  
Savia  
Sclerocroton  
Sebastiania  
Securinega  
Senefeldera  
Serophyton  
Siphonia  
Spathiostemon  
Spixia  
Stillingia  
Strophioblachia  
Synadenium  
T cell (lymphocyte)  
Tetracoccus  
Tetraplandra  
Tetrorchidium  
Thyrsanthera  
Tithymalus  
Tragia  
Trewia  
Trigonostemon  
Tyria  
Xylophylla  
(diterpenes from Euphorbiaceae for treatment of prostate cancer)

IT Immunoglobulins  
Prostate-specific antigen  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(diterpenes from Euphorbiaceae for treatment of prostate cancer)

IT Diterpenes  
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU  
(Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
(diterpenes from Euphorbiaceae for treatment of prostate cancer)

IT Prostate gland  
(neoplasm, inhibitors; diterpenes from Euphorbiaceae for treatment of  
prostate cancer)

IT Prostate gland  
(neoplasm, prostate-specific tumor marker; diterpenes from  
Euphorbiaceae for treatment of prostate cancer)

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- IT Antitumor agents  
(prostate gland; diterpenes from Euphorbiaceae for treatment of prostate cancer)
- IT Antigens  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(prostate-specific membrane antigen (PMSA); diterpenes from Euphorbiaceae for treatment of prostate cancer)
- IT Drug interactions  
(synergistic; diterpenes from Euphorbiaceae for treatment of prostate cancer)
- IT 13598-36-2D, Phosphonic acid, alkylidenebis- derivs.  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(Bisphosphonate; diterpenes from Euphorbiaceae for treatment of prostate cancer)
- IT 1984-15-2 15663-27-1, Cisplatin 38937-66-5  
67707-88-4, Ingenane 67707-88-4D,  
Ingenane, derivs. 75567-37-2 75567-37-2D,  
derivs. 75567-38-3 75567-38-3D, derivs.  
82425-35-2 82425-35-2D, derivs. 210108-85-3,  
Jatrophane 1 210108-85-3D, Jatrophane 1, derivs.  
210108-86-4, Jatrophane 2 210108-86-4D, Jatrophane 2,  
derivs. 210108-87-5, Jatrophane 3 210108-87-5D,  
Jatrophane 3, derivs. 210108-88-6, Jatrophane 4  
210108-88-6D, Jatrophane 4, derivs. 210108-89-7,  
Jatrophane 5 210108-89-7D, Jatrophane 5, derivs.  
210108-90-0, Jatrophane 6 210108-90-0D, Jatrophane 6,  
derivs. 210108-91-1, Pepluane 210108-91-1D, Pepluane,  
derivs.  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(diterpenes from Euphorbiaceae for treatment of prostate cancer)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr ind 2

L4 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 2001:903883 HCAPLUS  
 DOCUMENT NUMBER: 136:31680  
 TITLE: Euphorbiaceae macrocyclic diterpenes for the treatment  
 of inflammation  
 INVENTOR(S): **Aylward, James Harrison; Parsons, Peter**  
 Gordon; Suhrbier, Andreas; Turner, Kathleen Anne  
 PATENT ASSIGNEE(S): Peplin Research Pty. Ltd., Australia  
 SOURCE: PCT Int. Appl., 172 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001093885	A1	20011213	WO 2001-AU680	20010607
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 752435	B2	20020919	AU 2001-63662	20010607
PRIORITY APPLN. INFO.:			AU 2000-8017	A 20000607
			WO 2001-AU680	W 20010607

OTHER SOURCE(S): MARPAT 136:31680  
 AB The invention relates generally to chem. agents useful in the treatment and prophylaxis of inflammatory conditions or in the amelioration of symptoms resulting from or facilitated by an inflammatory condition in a mammalian animal, including humans and primates, non-mammalian animal, and avian species. More particularly, the invention provides a chem. agent of the macrocyclic diterpene family obtaining from a member of the Euphorbiaceae family of plants or botanical or horticultural relatives thereof or derivs. or chem. analogs or chem. synthetic forms of the agents for use in the treatment or prophylaxis of an inflammatory condition or in the amelioration of symptoms resulting from or facilitated by an inflammatory condition in a mammal, animal or avian species. The invention further provides a method for the prophylaxis or treatment of mammalian, animal or avian subjects for inflammatory conditions including chronic or transitory inflammatory conditions or for ameliorating the symptoms of an inflammatory condition by the topical or systemic administration of a macrocyclic diterpene obtainable from a member of the Euphorbiaceae family or botanical or horticultural relatives thereof or a deriv., chem. analog or chem. synthetic form of the agent. The chem. agent of the invention may be in the form of a purified compd., mixt. of compds., a precursor form of one or more of the compds. capable of chem. transformation into a therapeutically active agent, or be in the form of a chem. fraction, sub-fraction, or prepn. or ext. of the plant.

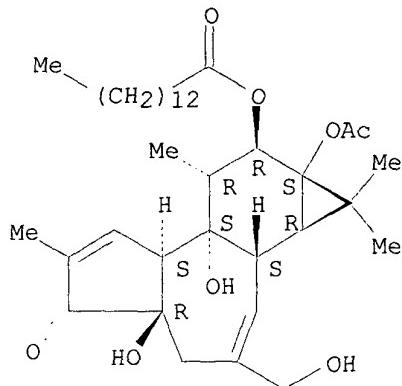
IT 16561-29-8, Pma 37558-16-0, Phorbol dibutyrate  
 141436-78-4, Protein kinase C  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (Euphorbiaceae macrocyclic diterpene for inflammation treatment)

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RN 16561-29-8 HCPLUS

CN Tetradecanoic acid, (1aR,1bS,4aR,7aS,7bS,8R,9R,9aS)-9a-(acetyloxy)-1a,1b,4,4a,5,7a,7b,8,9,9a-decahydro-4a,7b-dihydroxy-3-(hydroxymethyl)-1,1,6,8-tetramethyl-5-oxo-1H-cyclopropano[3,4]benz[1,2-e]azulen-9-yl ester (9CI) (CA INDEX NAME)

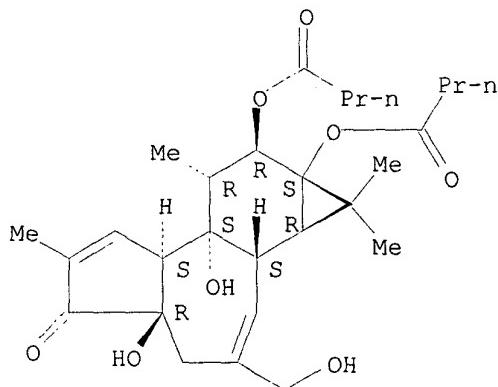
Absolute stereochemistry.



RN 37558-16-0 HCPLUS

CN Butanoic acid, (1aR,1bS,4aR,7aS,7bS,8R,9R,9aS)-1,1a,1b,4,4a,5,7a,7b,8,9-decahydro-4a,7b-dihydroxy-3-(hydroxymethyl)-1,1,6,8-tetramethyl-5-oxo-9aH-cyclopropano[3,4]benz[1,2-e]azulene-9,9a-diyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 141436-78-4 HCPLUS

CN Kinase (phosphorylating), protein, C (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 67707-88-4, Ingenane 67707-88-4D,

Ingenane, derivs. 75567-37-2 82425-35-2

210108-85-3, Jatrophane 1 210108-85-3D, Jatrophane 1,

derivs. 210108-86-4, Jatrophane 2 210108-86-4D,

Jatrophane 2, derivs. 210108-87-5, Jatrophane 3

210108-87-5D, Jatrophane 3, derivs. 210108-88-6,

Jatrophane 4 210108-88-6D, Jatrophane 4, derivs.

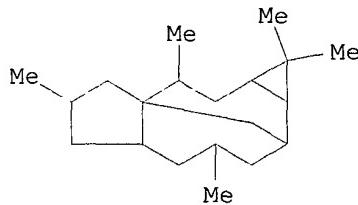
TATE 09/888,997

210108-89-7, Jatrophane 5 210108-89-7D, Jatrophane 5,  
derivs. 210108-90-0, Jatrophane 6 210108-90-0D,  
Jatrophane 6, derivs.

RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU  
(Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
(Euphorbiaceae macrocyclic diterpene for inflammation treatment)

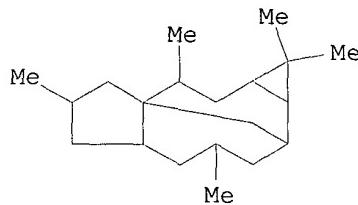
RN 67707-88-4 HCPLUS

CN 1H-2,8a-Methanocyclopenta[a]cyclopropa[e]cyclodecene, dodecahydro-  
1,1,4,7,9-pentamethyl-, (1aS,2R,4R,5aR,7R,8aR,9R,10aR)- (9CI) (CA INDEX  
NAME)



RN 67707-88-4 HCPLUS

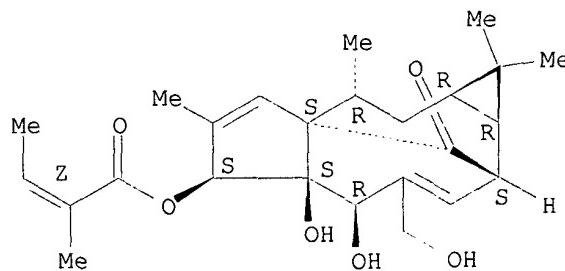
CN 1H-2,8a-Methanocyclopenta[a]cyclopropa[e]cyclodecene, dodecahydro-  
1,1,4,7,9-pentamethyl-, (1aS,2R,4R,5aR,7R,8aR,9R,10aR)- (9CI) (CA INDEX  
NAME)



RN 75567-37-2 HCPLUS

CN 2-Butenoic acid, 2-methyl-, (1aR,2S,5R,5aS,6S,8aS,9R,10aR)-  
1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-4-(hydroxymethyl)-1,1,7,9-  
tetramethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropa[e]cyclodecen-6-  
yl ester, (2Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).  
Double bond geometry as shown.

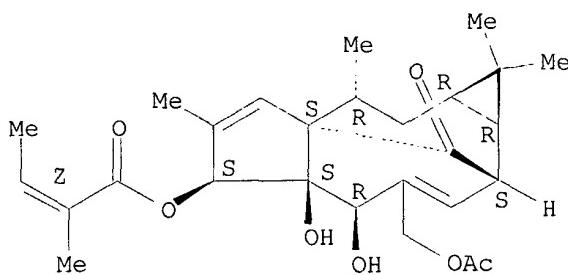


RN 82425-35-2 HCPLUS

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CN 2-Butenoic acid, 2-methyl-, (1aR,2S,5R,5aS,6S,8aS,9R,10aR)-4-[(acetyloxy)methyl]-1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-1,1,7,9-tetramethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropa[e]cyclodecen-6-yl ester, (2Z)- (9CI) (CA INDEX NAME)

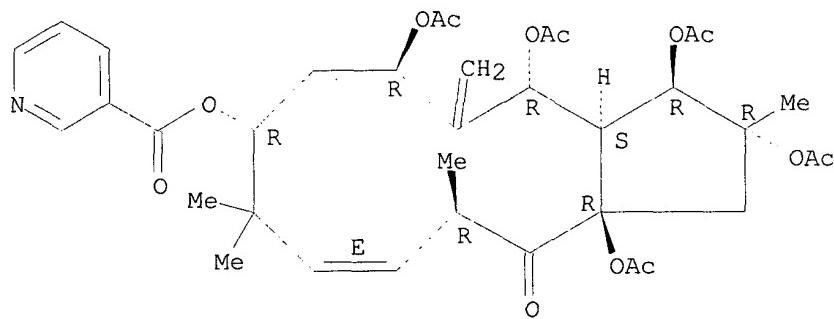
Absolute stereochemistry. Rotation (+).  
Double bond geometry as shown.



RN 210108-85-3 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6R,8R,10E,12R,13aR)-2,3,4,6,13a-pentakis(acetyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-2,9,9,12-tetramethyl-5-methylene-13-oxo-1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

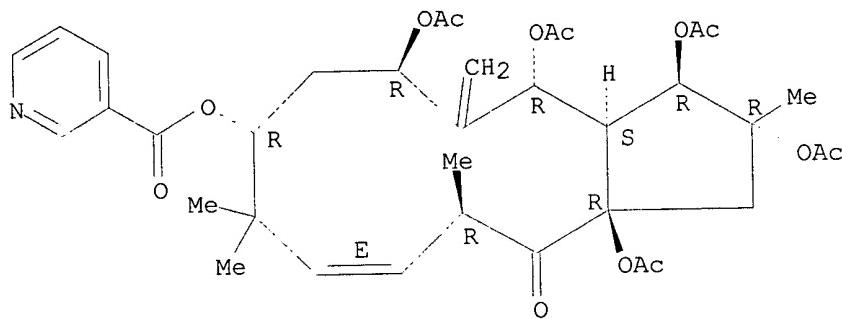
Absolute stereochemistry. Rotation (-).  
Double bond geometry as described by E or Z.



RN 210108-85-3 HCPLUS

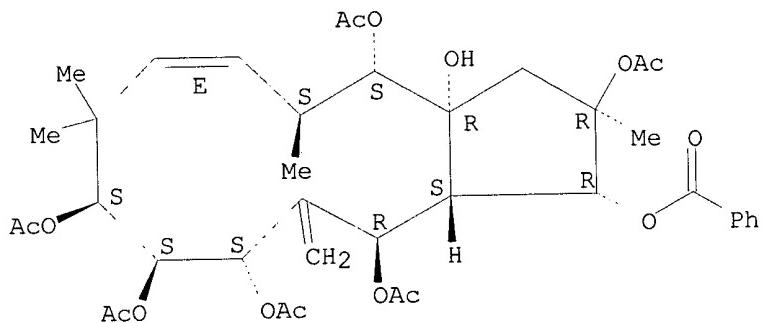
CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6R,8R,10E,12R,13aR)-2,3,4,6,13a-pentakis(acetyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-2,9,9,12-tetramethyl-5-methylene-13-oxo-1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
Double bond geometry as described by E or Z.



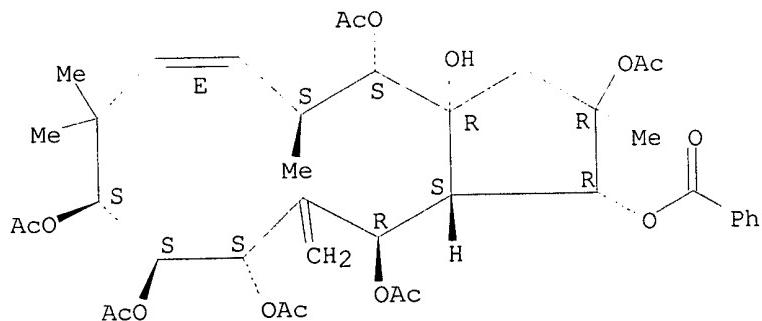
RN 210108-86-4 HCPLUS  
 CN 3aH-Cyclopentacyclododecene-1,2,3a,4,9,10,11,13-octol,  
 1,2,3,4,5,8,9,10,11,12,13,13a-dodecahydro-2,5,8,8-tetramethyl-12-methylene-  
 , 2,4,9,10,11,13-hexaacetate 1-benzoate, (1R,2R,3aR,4S,5S,6E,9S,10S,11S,13  
 R,13aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
 Double bond geometry as described by E or Z.



RN 210108-86-4 HCPLUS  
 CN 3aH-Cyclopentacyclododecene-1,2,3a,4,9,10,11,13-octol,  
 1,2,3,4,5,8,9,10,11,12,13,13a-dodecahydro-2,5,8,8-tetramethyl-12-methylene-  
 , 2,4,9,10,11,13-hexaacetate 1-benzoate, (1R,2R,3aR,4S,5S,6E,9S,10S,11S,13  
 R,13aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
 Double bond geometry as described by E or Z.

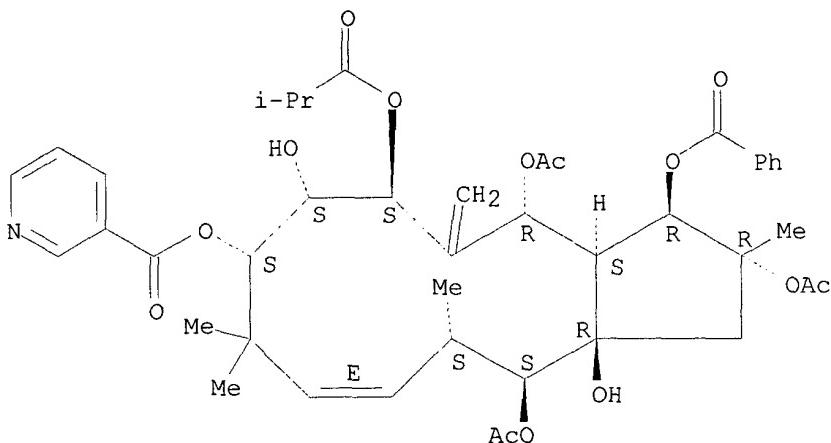


RN 210108-87-5 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-2,4,13-tris(acetyloxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-6-(2-methyl-1-oxopropoxy)-1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

Double bond geometry as described by E or Z.

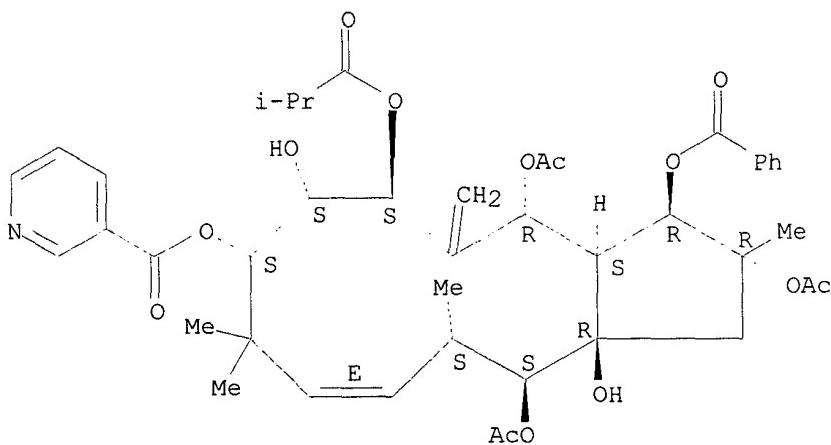


RN 210108-87-5 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-2,4,13-tris(acetyloxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-6-(2-methyl-1-oxopropoxy)-1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

Double bond geometry as described by E or Z.

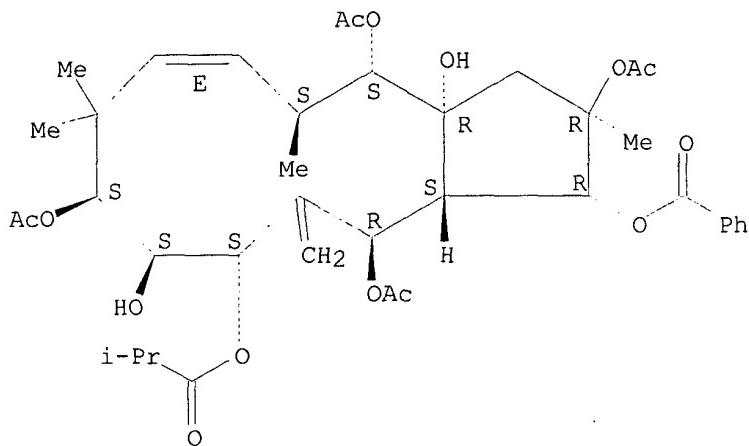


RN 210108-88-6 HCPLUS

CN Propanoic acid, 2-methyl-, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-2,4,8,13-tetrakis(acetyloxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-1H-cyclopentacyclododecen-6-yl ester (9CI) (CA INDEX NAME)

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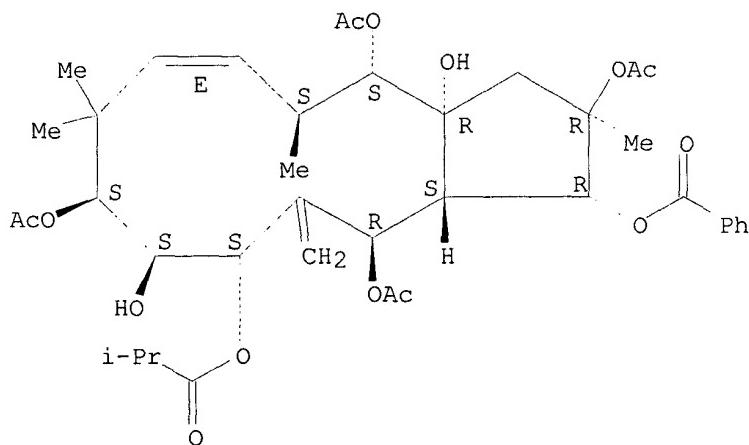
Absolute stereochemistry. Rotation (+).  
Double bond geometry as described by E or Z.



RN 210108-88-6 HCPLUS

CN Propanoic acid, 2-methyl-, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-2,4,8,13-tetrakis(acetoxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-1H-cyclopentacyclododecen-6-yl ester (9CI) (CA INDEX NAME)

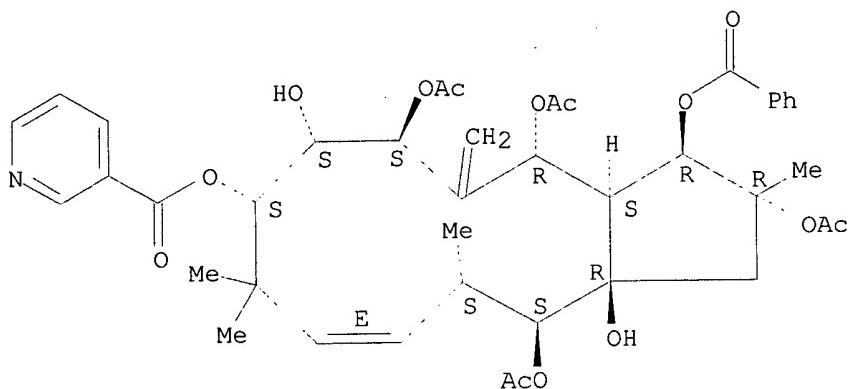
Absolute stereochemistry. Rotation (+).  
Double bond geometry as described by E or Z.



RN 210108-89-7 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-2,4,6,13-tetrakis(acetoxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).  
Double bond geometry as described by E or Z.

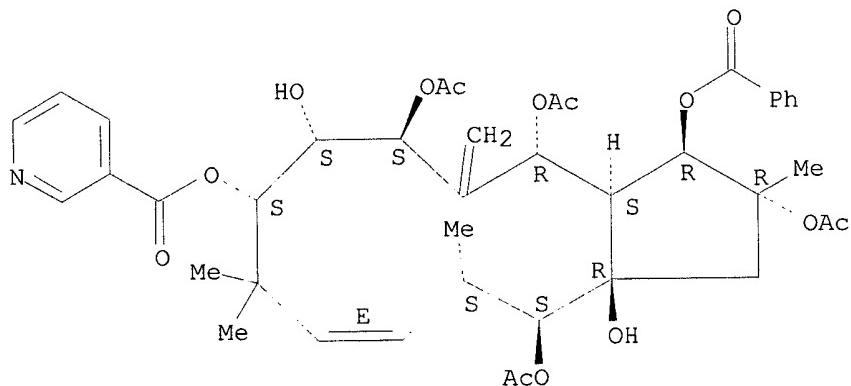


RN 210108-89-7 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-  
2,4,6,13-tetrakis(acetoxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-  
dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-1H-  
cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

Double bond geometry as described by E or Z.

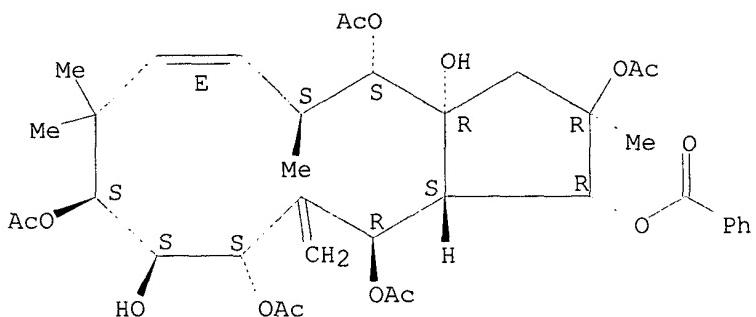


RN 210108-90-0 HCPLUS

CN 3aH-Cyclopentacyclododecene-1,2,3a,4,9,10,11,13-octol,  
1,2,3,4,5,8,9,10,11,12,13,13a-dodecahydro-2,5,8,8-tetramethyl-12-methylene-  
,2,4,9,11,13-pentaacetate 1-benzoate, (1R,2R,3aR,4S,5S,6E,9S,10S,11S,13R,  
13aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.

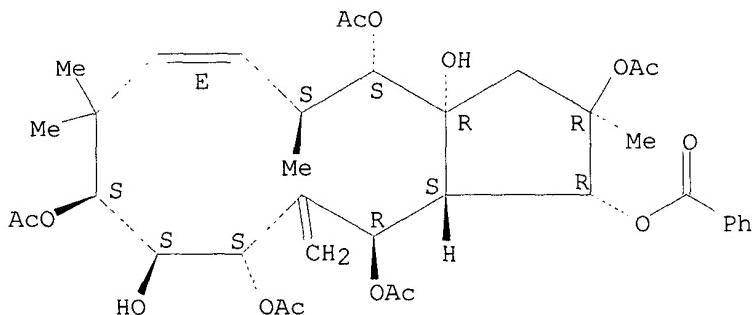


RN 210108-90-0 HCAPLUS

CN 3aH-Cyclopentacyclododecene-1,2,3a,4,9,10,11,13-octol,  
 1,2,3,4,5,8,9,10,11,12,13,13a-dodecahydro-2,5,8,8-tetramethyl-12-methylene-  
 2,4,9,11,13-pentaacetate 1-benzoate, (1R,2R,3aR,4S,5S,6E,9S,10S,11S,13R,  
 13aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.



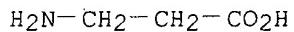
IT 107-95-9, .beta.-Alanine 515-25-3 590-46-5,

Betaine hydrochloride

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (carrier; Euphorbiaceae macrocyclic diterpene for inflammation  
 treatment)

RN 107-95-9 HCAPLUS

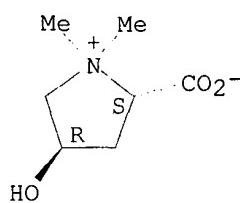
CN .beta.-Alanine (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 515-25-3 HCAPLUS

CN Pyrrolidinium, 2-carboxy-4-hydroxy-1,1-dimethyl-, inner salt, (2S,4R)-  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 590-46-5 HCAPLUS

CN Methanaminium, 1-carboxy-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

 $\text{Me}_3\text{N}^+ \text{---} \text{CH}_2 \text{---} \text{CO}_2\text{H}$ ● Cl<sup>-</sup>

IC ICM A61K035-78  
 ICS A61K031-455; A61K031-22; A61P031-02; G06F019-00  
 CC 1-7 (Pharmacology)  
 Section cross-reference(s): 11  
 ST Euphorbiaceae macrocyclic diterpene antiinflammatory  
 IT Promoter (genetic element)  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (CMV; Euphorbiaceae macrocyclic diterpene for inflammation treatment)  
 IT Acalypha  
 Acidoton  
 Actinostemon  
 Adelia  
 Adenocline  
 Adenocrepis  
 Adenophaedra  
 Adenoviridae  
 Adisca  
 Agrostistachys  
 Alchornea  
 Alchorneopsis  
 Alcinaeanthus  
 Alcoceria  
 Aleurites  
 Amanoa  
 Amoeba  
 Andrachne  
 Angostyles  
 Anisophyllum  
 Anti-infective agents  
 Anti-inflammatory agents  
 Antibacterial agents  
 Antidesma  
 Antiviral agents  
 Aphora  
 Aporosa  
 Aporosella  
 Arachnida  
 Arbovirus

Argythamnia  
Aspergillus  
Astrococcus  
Astrogyne  
Baccaurea  
Bacillus anthracis  
Balantidium coli  
Baliospermum  
Bernardia  
Beyeriopsis  
Bischofia  
Blachia  
Blastomyces dermatitidis  
Blumeodondron  
Bonania  
Bordetella  
Bordetella pertussis  
Borrelia  
Borrelia burgdorferi  
Bradleia  
Breynia  
Breyniopsis  
Briedelia  
Buraeavia  
Caletia  
Candida albicans  
Caperonia  
Caryodendron  
Celianella  
Cephalocroton  
Chaenotheca  
Chaetocarpus  
Cheilosa  
Chiropetalum  
Chlamydia  
Chlamydia trachomatis  
Choriophyllum  
Cicca  
Cleidion  
Cleistanthus  
Clostridium  
Clostridium botulinum  
Clostridium perfringens  
Clostridium tetani  
Clutia  
Cnesmone  
Cnidoscolus  
Coccoceras  
Codiaeum  
Coelodiscus  
Computer application  
Computer program  
Conami  
Conceveiba  
Conceveibastrum  
Conceveibum  
Corynebacterium  
Corynebacterium diphtheriae  
Corythea  
Croizatia

Croton  
Crotonopsis  
Crozophora  
*Cryptococcus neoformans*  
Cryptosporidium  
Cubanthus  
Cunuria  
Cytomegalovirus  
Dactylostemon  
Dalechampia  
Dendrocousinsia  
Diasperus  
Didymocistus  
Dimorphocalyx  
Discocarpus  
Ditaxis  
Dodecastigma  
Drug delivery systems  
Drug screening  
Drypetes  
Dysopsis  
Elateriospermum  
Endadenium  
*Endadenium gossweileri*  
Endospermum  
*Entamoeba histolytica*  
Erismanthus  
Erythrocarpus  
Erythrocilus  
Escherichia  
*Escherichia coli*  
Eumecanthus  
Euphorbia  
*Euphorbia aaron-rossii*  
*Euphorbia abbreviata*  
*Euphorbia acuta*  
*Euphorbia alatocaulis*  
*Euphorbia albicaulis*  
*Euphorbia albomarginata*  
*Euphorbia aliceae*  
*Euphorbia alta*  
*Euphorbia anacampseros*  
*Euphorbia andromedae*  
*Euphorbia angusta*  
*Euphorbia antiquensis*  
*Euphorbia apocynifolia*  
*Euphorbia arabica*  
*Euphorbia ariensis*  
*Euphorbia arizonica*  
*Euphorbia arkansana*  
*Euphorbia arteagae*  
*Euphorbia arundelana*  
*Euphorbia astroites*  
*Euphorbia atrococca*  
*Euphorbia baselices*  
*Euphorbia batabanensis*  
*Euphorbia bergeri*  
*Euphorbia bermudiana*  
*Euphorbia bicolor*  
*Euphorbia biformis*

Euphorbia bifurcata  
Euphorbia bilobata  
Euphorbia biramensis  
Euphorbia biuncialis  
Euphorbia blepharostipula  
Euphorbia blodgettii  
Euphorbia boerhaavioides  
Euphorbia boliviana  
Euphorbia bracei  
Euphorbia brachiata  
Euphorbia brachycera  
Euphorbia brandegeei  
Euphorbia brittonii  
Euphorbia caesia  
Euphorbia calcicola  
Euphorbia campestris  
Euphorbia candelabrum  
Euphorbia capitellata  
Euphorbia carmenensis  
Euphorbia carunculata  
Euphorbia cayensis  
Euphorbia celastroides  
Euphorbia chalicophila  
Euphorbia chamaerrhodos  
Euphorbia chamaesula  
Euphorbia chiapensis  
Euphorbia chiogenoides  
Euphorbia cinerascens  
Euphorbia clarionensis  
Euphorbia colimae  
Euphorbia colorata  
Euphorbia commutata  
Euphorbia consoquitiae  
Euphorbia convolvuloides  
Euphorbia corallifera  
Euphorbia creberrima  
Euphorbia crenulata  
Euphorbia cubensis  
Euphorbia cuspidata  
Euphorbia cymbiformis  
Euphorbia darlingtonii  
Euphorbia defoliata  
Euphorbia degeneri  
Euphorbia deltoidea  
Euphorbia dentata  
Euphorbia depressa  
Euphorbia dictyosperma  
Euphorbia dioeca  
Euphorbia discoidalis  
Euphorbia dorsiventralis  
Euphorbia drummondii  
Euphorbia duclouxii  
Euphorbia dussii  
Euphorbia eanophylla  
Euphorbia eggersii  
Euphorbia eglandulosa  
Euphorbia elata  
Euphorbia enalla  
Euphorbia eriogonoides  
Euphorbia eriophylla

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Euphorbia esulaeformis  
Euphorbia espirituensis  
Euphorbia esula  
Euphorbia excisa  
Euphorbia exclusa  
Euphorbia exstipitata  
Euphorbia exstipulata  
Euphorbia fendleri  
Euphorbia filicaulis  
Euphorbia filiformis  
Euphorbia florida  
Euphorbia fruticulosa  
Euphorbia garberi  
Euphorbia gaumerii  
Euphorbia gerardiana  
Euphorbia geyeri  
Euphorbia glyptosperma  
Euphorbia gorgonis  
Euphorbia gracilior  
Euphorbia gracillima  
Euphorbia gradyi  
Euphorbia graminea  
Euphorbia grisea  
Euphorbia guadalajarana  
Euphorbia guanarensis  
Euphorbia gymnadenia  
Euphorbia haematantha  
Euphorbia hedyotoides  
Euphorbia heldrichii  
Euphorbia helenae  
Euphorbia helleri  
Euphorbia helwigii  
Euphorbia henricksonii  
Euphorbia heterophylla

(Euphorbiaceae macrocyclic diterpene for inflammation treatment)

IT Euphorbia hexagona  
Euphorbia hexagonoides  
Euphorbia hinkleyorum  
Euphorbia hintonii  
Euphorbia hirta  
Euphorbia hirtula  
Euphorbia hooveri  
Euphorbia humistrata  
Euphorbia hypericifolia  
Euphorbia inundata  
Euphorbia involuta  
Euphorbia jaliscensis  
Euphorbia jejuna  
Euphorbia johnstonii  
Euphorbia juttae  
Euphorbia knuthii  
Euphorbia lasiocarpa  
Euphorbia lata  
Euphorbia latazi  
Euphorbia latericolor  
Euphorbia laxiflora  
Euphorbia lecheoides  
Euphorbia ledienii  
Euphorbia leucophylla  
Euphorbia lineata

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Euphorbia linguiformis  
Euphorbia longecornuta  
Euphorbia longepetiolata  
Euphorbia longeramosa  
Euphorbia longinsulicola  
Euphorbia longipila  
Euphorbia lupulina  
Euphorbia lurida  
Euphorbia lycioides  
Euphorbia macropodooides  
Euphorbia macvaughiana  
Euphorbia manca  
Euphorbia mandoniana  
Euphorbia mangleti  
Euphorbia mango  
Euphorbia marylandica  
Euphorbia mayana  
Euphorbia melanadenia  
Euphorbia melanocarpa  
Euphorbia meridensis  
Euphorbia mertonii  
Euphorbia mexiae  
Euphorbia microcephala  
Euphorbia microclada  
Euphorbia micromera  
Euphorbia misella  
Euphorbia missurica  
Euphorbia montana  
Euphorbia montereyana  
Euphorbia multicaulis  
Euphorbia multiformis  
Euphorbia multinodis  
Euphorbia multiseta  
Euphorbia muscicola  
Euphorbia neomexicana  
Euphorbia nephradenia  
Euphorbia niqueroana  
Euphorbia oaxacana  
Euphorbia occidentalis  
Euphorbia odontodenia  
Euphorbia olivacea  
Euphorbia olowaluana  
Euphorbia ophthalmica  
Euphorbia ovata  
Euphorbia pachypoda  
Euphorbia pachyrhiza  
Euphorbia padifolia  
Euphorbia palmeri  
Euphorbia paludicola  
Euphorbia parishii  
Euphorbia parryi  
Euphorbia parviflora  
Euphorbia paxiana  
Euphorbia pediculifera  
Euphorbia peplidion  
Euphorbia peploides  
Euphorbia peplus  
Euphorbia pergamenta  
Euphorbia perlignea  
Euphorbia petaloidea

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Euphorbia petrina  
Euphorbia picachensis  
Euphorbia pilosula  
Euphorbia pinariona  
Euphorbia pinctorum  
Euphorbia pionosperma  
Euphorbia platysperma  
Euphorbia plicata  
Euphorbia poeppigii  
Euphorbia poliosperma  
Euphorbia polycarpa  
Euphorbia polycnemooides  
Euphorbia polyphylla  
Euphorbia portoricensis  
Euphorbia portulacoides  
Euphorbia portulana  
Euphorbia presliae  
Euphorbia prostrata  
Euphorbia pteroneura  
Euphorbia pycnanthema  
Euphorbia ramosa  
Euphorbia rapulum  
Euphorbia remyi  
Euphorbia retroscabra  
Euphorbia revoluta  
Euphorbia rivularis  
Euphorbia robusta  
Euphorbia rubida  
Euphorbia rubrosperma  
Euphorbia rupicola  
Euphorbia sanmartensis  
Euphorbia saxatilis  
Euphorbia schizoloba  
Euphorbia sclerocyathium  
Euphorbia scopulorum  
Euphorbia senilis  
Euphorbia serpyllifolia  
Euphorbia serrula  
Euphorbia setiloba  
Euphorbia sonorae  
Euphorbia soobyi  
Euphorbia sparsiflora  
Euphorbia sphaerosperma  
Euphorbia spruceana  
Euphorbia stellata  
Euphorbia subcoerulea  
Euphorbia submammilaris  
Euphorbia subpeltata  
Euphorbia subpubens  
Euphorbia subreniforme  
Euphorbia subtrifoliata  
Euphorbia succedanea  
Euphorbia syphilitica  
Euphorbia tamaulipasana  
Euphorbia telephioides  
Euphorbia tenuissima  
Euphorbia tetrapora  
Euphorbia tirucalli  
Euphorbia tomentella  
Euphorbia tomentosa

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Euphorbia torralbasii  
Euphorbia tovarensis  
Euphorbia trachysperma  
Euphorbia tricolor  
Euphorbia troyana  
Euphorbia tuerckheimii  
Euphorbia turczaninowii  
Euphorbia umbellulata  
Euphorbia undulata  
Euphorbia vermiformis  
Euphorbia versicolor  
Euphorbia villifera  
Euphorbia violacea  
Euphorbia whitei  
Euphorbia xanti  
Euphorbia xylopoda  
Euphorbia yayalesia  
Euphorbia yungasensis  
Euphorbia zeravschanica  
Euphorbia zinniiflora  
Euphorbiaceae  
Euphorbiodendron  
Excoecaria  
Fluggea  
Fungicides  
Garcia  
Gavarretia  
Gelonium  
Giardia lamblia  
Givotia  
Glochidion  
Glochidionopsis  
Glycydendron  
Gymnanthes  
Gymnosporia  
Haematospermum  
Haemophilus  
Haemophilus influenzae  
Hendecandras  
Hepatitis A virus  
Hepatitis B virus  
Hepatitis C virus  
Herpesviridae  
Hevea  
Hieronima  
Hippocrateandra  
Histoplasma capsulatum  
Homalanthus  
Human T-lymphotropic virus 1  
Human T-lymphotropic virus 2  
Human herpesvirus  
Human herpesvirus 3  
Human herpesvirus 4  
Human immunodeficiency virus  
Human immunodeficiency virus 1  
Human poliovirus  
Hymenocardia  
Immunostimulants  
Influenza A virus  
Influenza B virus

Insecta  
Janipha  
Jatropha  
Julocroton  
Klebsiella  
Klebsiella pneumoniae  
Lasiocroton  
Legionella  
Legionella pneumophila  
Leiocarpus  
Leishmania  
Leonardia  
Lepidanthus  
Leucocroton  
Leukocyte  
Listeria  
Listeria monocytogenes  
Mabea  
Macaranga  
Macrocroton  
Mallotus (plant)  
Manihot  
Mappa  
Maprounea  
Measles virus  
Melanthesa  
Mercurialis  
Mettenia  
Micrandra  
Microdesmis  
Microelus  
Microsporum  
Microstachys  
Monadenium  
Monadenium guentheri  
Monadenium lugardae  
Mononuclear cell (leukocyte)  
Mozinna  
Mumps virus  
    (Euphorbiaceae macrocyclic diterpene for inflammation treatment)  
IT  
Mycobacterium  
Mycobacterium leprae  
Mycobacterium tuberculosis  
Mycoplasma  
Mycoplasma pneumoniae  
Neisseria  
Neisseria gonorrhoeae  
Neisseria meningitidis  
Nematoda  
Neoscortechinia  
Neutrophil  
Omalanthus  
Omphalea  
Ophellantha  
Orbicularia  
Ostodes  
Oxydectes  
Palenga  
Pantadenia  
Papovaviridae

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Paradrypetes  
Pathogen  
Pausandra  
Pedilanthus  
Pera  
Peridium  
Petalostigma  
Phagocytosis  
Phyllanthus  
Picrodendron  
Pierardia  
Pilinophytum  
Pimeleodendron  
Piranhea  
Platygyna  
Plukenetia  
Pneumocystis carinii  
Podocalyx  
Poinsettia  
Poraresia  
Prokaryote  
Propionibacterium  
Propionibacterium acnes  
Prosartema  
Pseudanthus  
Pycnocoma  
Quadrasia  
Rabies virus  
Reverchonia  
Rhinovirus  
Richeria  
Richeriella  
Ricinella  
Ricinocarpos  
Rickettsia  
Rickettsia rickettsi  
Rottlera  
Rubella virus  
Sagotia  
Salmonella  
Salmonella typhi  
Salmonella typhimurium  
Sandwithia  
Sapium  
Savia  
Sclerocroton  
Sebastiania  
Securinega  
Senefeldera  
Serophyton  
Shigella  
Shigella dysenteriae  
Siphonia  
Spathiostemon  
Spixia  
Staphylococcus  
Staphylococcus aureus  
Stillingia  
Streptococcus  
Streptococcus pneumoniae

Streptococcus pyogenes  
Strophiobachia  
Synadenium  
Synadenium compactum  
Synadenium grantii  
Tetracoccus  
Tetraplandra  
Tetrorchidium  
Thysanthera  
Tithymalus  
Toxoplasma gondii  
Tragia  
Treponema  
Treponema pallidum  
Trewia  
Trichomonas vaginalis  
Trichophyton  
Trigonostemon  
Trypanosoma cruzi  
Trypanosoma gambiense  
Tyria  
Ureaplasma  
Ureaplasma parvum  
Vaccinia virus  
Variola virus  
Vibrio  
Vibrio cholerae  
Virus  
Xylophylla  
Yersinia  
Yersinia pestis  
    (Euphorbiaceae macrocyclic diterpene for inflammation treatment)  
IT Diterpenes  
    Macrocyclic compounds  
    RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
    (Euphorbiaceae macrocyclic diterpene for inflammation treatment)  
IT Eukaryota  
    (PKC-dependent; Euphorbiaceae macrocyclic diterpene for inflammation treatment)  
IT Respiration, animal  
    (burst; Euphorbiaceae macrocyclic diterpene for inflammation treatment)  
IT Ovary, neoplasm  
    (carcinoma, inhibitors; Euphorbiaceae macrocyclic diterpene for inflammation treatment)  
IT Diterpenes  
    RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
    (esters; Euphorbiaceae macrocyclic diterpene for inflammation treatment)  
IT Gene  
    RL: BSU (Biological study, unclassified); BIOL (Biological study)  
        (expression, PKC-dependent; Euphorbiaceae macrocyclic diterpene for inflammation treatment)  
IT Biological transport  
    (intracellular, PKC; Euphorbiaceae macrocyclic diterpene for inflammation treatment)  
IT Eukaryota  
    (lower; Euphorbiaceae macrocyclic diterpene for inflammation treatment)  
IT Antitumor agents

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- (melanoma; Euphorbiaceae macrocyclic diterpene for inflammation treatment)
- IT Lymphocyte  
(natural killer cell; Euphorbiaceae macrocyclic diterpene for inflammation treatment)
- IT Antitumor agents  
(ovary carcinoma; Euphorbiaceae macrocyclic diterpene for inflammation treatment)
- IT Drug delivery systems  
(tinctures, tincture; Euphorbiaceae macrocyclic diterpene for inflammation treatment)
- IT Cell differentiation  
(to bipolar dendritic phenotype; Euphorbiaceae macrocyclic diterpene for inflammation treatment)
- IT Drug delivery systems  
(topical; Euphorbiaceae macrocyclic diterpene for inflammation treatment)
- IT 16561-29-8, Pma 37558-16-0, Phorbol dibutyrate  
141436-78-4, Protein kinase C  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(Euphorbiaceae macrocyclic diterpene for inflammation treatment)
- IT 67707-88-4, Ingenane 67707-88-4D,  
Ingenane, derivs. 75567-37-2 82425-35-2  
210108-85-3, Jatrophane 1 210108-85-3D, Jatrophane 1,  
derivs. 210108-86-4, Jatrophane 2 210108-86-4D,  
Jatrophane 2, derivs. 210108-87-5, Jatrophane 3  
210108-87-5D, Jatrophane 3, derivs. 210108-88-6,  
Jatrophane 4 210108-88-6D, Jatrophane 4, derivs.  
210108-89-7, Jatrophane 5 210108-89-7D, Jatrophane 5,  
derivs. 210108-90-0, Jatrophane 6 210108-90-0D,  
Jatrophane 6, derivs.  
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU  
(Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
(Euphorbiaceae macrocyclic diterpene for inflammation treatment)
- IT 107-95-9, .beta.-Alanine 515-25-3 590-46-5,  
Betaine hydrochloride  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(carrier; Euphorbiaceae macrocyclic diterpene for inflammation treatment)
- REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L4 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 2001:903881 HCAPLUS  
 DOCUMENT NUMBER: 136:42795  
 TITLE: Macroyclic diterpenes for treatment and prophylaxis of PKC-related conditions  
 INVENTOR(S): Aylward, James Harrison; Parsons, Peter Gordon; Suhrbier, Andreas; Turner, Kathleen Anne  
 PATENT ASSIGNEE(S): Peplin Research Pty. Ltd., Australia  
 SOURCE: PCT Int. Appl., 215 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001093884	A1	20011213	WO 2001-AU679	20010607
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 752462	B2	20020919	AU 2001-63661	20010607
PRIORITY APPLN. INFO.:			AU 2000-8017	A 20000607
			WO 2001-AU679	W 20010607

OTHER SOURCE(S): MARPAT 136:42795

AB The present invention relates generally to chem. agents useful in the treatment and prophylaxis of protein kinase C (PKC)-related conditions in mammals, including humans and primates, non-mammalian animals and avian species. More particularly, the present invention provides a chem. agent of the macrocyclic diterpene family obtainable from a member of the Euphorbiaceae family of plants or botanical or horticultural relatives thereof or derivs. or chem. analogs or chem. synthetic forms of the agents for use in the treatment or prophylaxis of PKC-related conditions in mammalian, animal and avian subjects. The subject chem. agents are also useful for modulating expression of genetic sequences including promotion and other regulatory sequences. The present invention further contemplates a method for the prophylaxis and/or treatment in mammalian, animal or avian subjects with PKC-related conditions by the topical or systemic administration of a macrocyclic diterpene obtainable from a member of the Euphorbiaceae family of plants or their botanical or horticultural derivs. or a deriv., chem. analog or chem. synthetic form of the agent. The chem. agent of the present invention may be in the form of a purified compd., mixt. of compds., a precursor form of one or more of the compds. capable of chem. transformation into a therapeutically and/or genetically active agent or in the form of a chem. fraction, sub-fraction, prepn. or ext. of the plant. For example, an exts. of Euphorbia peplus sap (PEP003) reduced replication kinetics of HIV-1 virus in infected T-cells in a dose dependent manner. PEP003 at concns. of 500, 50, and 5 nM reduced the replication rate by approx. 99.9%, 95% and 47%, resp., relative to untreated, infected cells. Also, diterpene esters obtained from E. peplus activated human peripheral blood leukocytes to produce, in

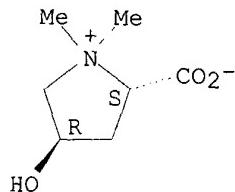
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a PKC-dependent manner, phagocytosis and respiratory burst which are potentially lethal to microorganisms and other cells, e.g., tumor cells.

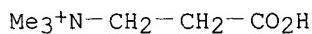
IT 515-25-3 6340-41-6  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(carrier; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

RN 515-25-3 HCPLUS  
CN Pyrrolidinium, 2-carboxy-4-hydroxy-1,1-dimethyl-, inner salt, (2S,4R)-  
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 6340-41-6 HCPLUS  
CN Ethanaminium, 2-carboxy-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

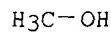
IT 141436-78-4, Protein kinase C  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

RN 141436-78-4 HCPLUS  
CN Kinase (phosphorylating), protein, C (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 67-56-1, Methanol, uses 141-78-6, Ethyl acetate, uses  
9041-37-6, Sephadex LH 20 9060-05-3, Amberlite XAD-2  
11104-40-8, Amberlite XAD-8 37380-42-0, Amberlite XAD-4  
37380-43-1, Amberlite XAD-7 104219-63-8, Amberlite XAD-16  
RL: NUU (Other use, unclassified); USES (Uses)  
(isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

RN 67-56-1 HCPLUS  
CN Methanol (8CI, 9CI) (CA INDEX NAME)



RN 141-78-6 HCPLUS

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CN Acetic acid ethyl ester (8CI, 9CI) (CA INDEX NAME)

Et—O—Ac

RN 9041-37-6 HCPLUS

CN Sephadex LH 20 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 9060-05-3 HCPLUS

CN Amberlite XAD 2 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 11104-40-8 HCPLUS

CN Amberlite XAD 8 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 37380-42-0 HCPLUS

CN Amberlite XAD 4 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 37380-43-1 HCPLUS

CN Amberlite XAD 7 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 104219-63-8 HCPLUS

CN Amberlite XAD 16 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 67707-88-4P, Ingenane 82425-35-2P

210108-85-3P, Jatrophane 1 210108-86-4P, Jatrophane 2

210108-87-5P, Jatrophane 3 210108-88-6P, Jatrophane 4

210108-89-7P, Jatrophane 5 210108-90-0P, Jatrophane 6

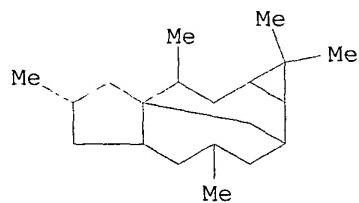
210108-91-1P, Pepluane 214900-78-4DP, derivs.

RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

RN 67707-88-4 HCPLUS

CN 1H-2,8a-Methanocyclopenta[a]cyclopropa[e]cyclodecene, dodecahydro-1,1,4,7,9-pentamethyl-, (1aS,2R,4R,5aR,7R,8aR,9R,10aR)- (9CI) (CA INDEX NAME)



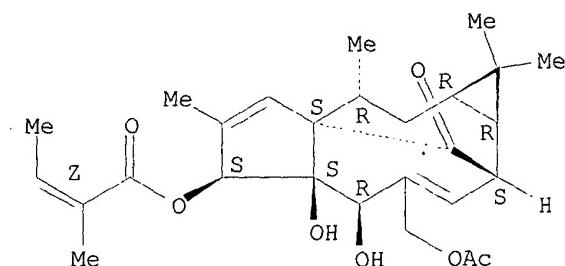
RN 82425-35-2 HCPLUS

CN 2-Butenoic acid, 2-methyl-, (1aR,2S,5R,5aS,6S,8aS,9R,10aR)-4-[{(acetoxy)methyl]-1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-1,1,7,9-

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tetramethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropane[e]cyclodecen-6-yl ester, (2Z)- (9CI) (CA INDEX NAME)

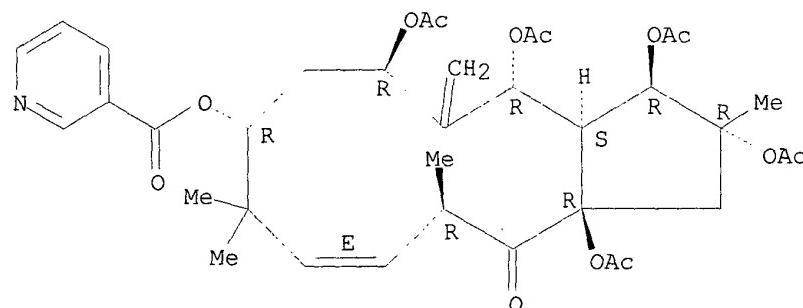
Absolute stereochemistry. Rotation (+).  
Double bond geometry as shown.



RN 210108-85-3 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6R,8R,10E,12R,13aR)-2,3,4,6,13a-pentakis(acetoxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-2,9,9,12-tetramethyl-5-methylene-13-oxo-1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

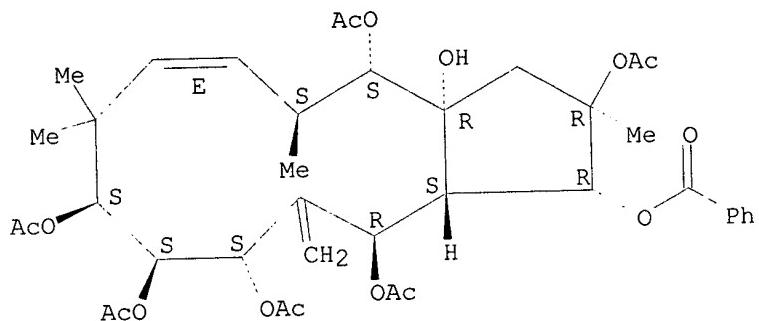
Absolute stereochemistry. Rotation (-).  
Double bond geometry as described by E or Z.



RN 210108-86-4 HCPLUS

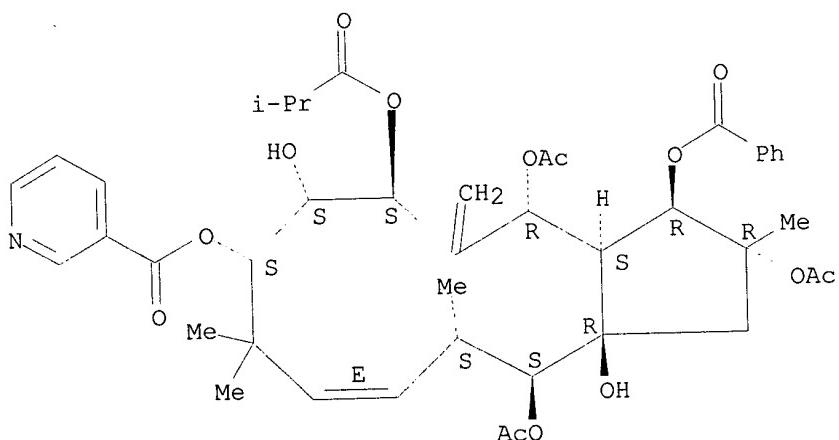
CN 3aH-Cyclopentacyclododecene-1,2,3a,4,9,10,11,13-octol,  
1,2,3,4,5,8,9,10,11,12,13,13a-dodecahydro-2,5,8,8-tetramethyl-12-methylene-,  
2,4,9,10,11,13-hexaacetate 1-benzoate, (1R,2R,3aR,4S,5S,6E,9S,10S,11S,13R,13aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
Double bond geometry as described by E or Z.



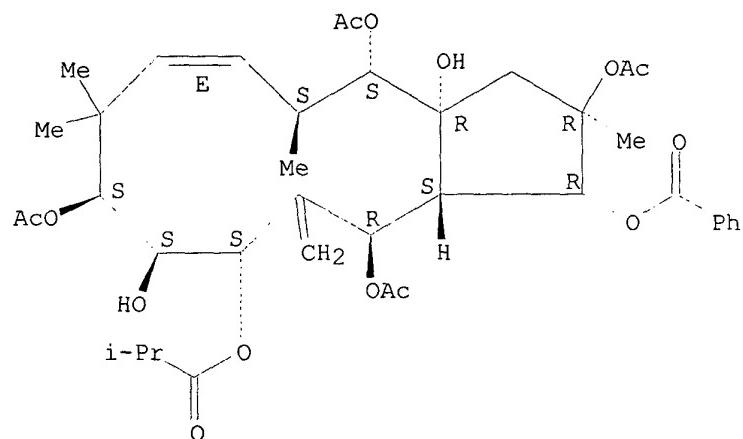
RN 210108-87-5 HCPLUS  
 CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-2,4,13-tris(acetoxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-6-(2-methyl-1-oxopropoxy)-1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).  
 Double bond geometry as described by E or Z.



RN 210108-88-6 HCPLUS  
 CN Propanoic acid, 2-methyl-, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-2,4,8,13-tetrakis(acetoxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-1H-cyclopentacyclododecen-6-yl ester (9CI) (CA INDEX NAME)

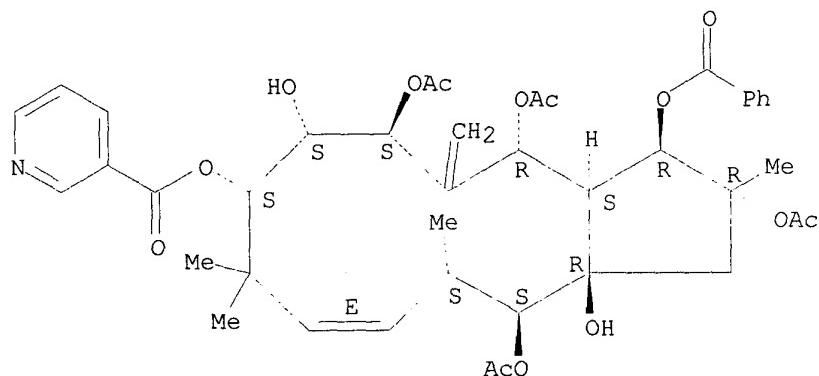
Absolute stereochemistry. Rotation (+).  
 Double bond geometry as described by E or Z.



RN 210108-89-7 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-2,4,6,13-tetrakis(acetoxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

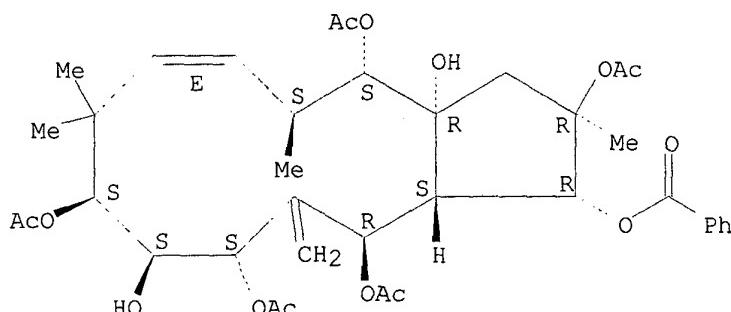
Absolute stereochemistry. Rotation (+).  
Double bond geometry as described by E or Z.



RN 210108-90-0 HCPLUS

CN 3aH-Cyclopentacyclododecene-1,2,3a,4,9,10,11,13-octol, 1,2,3,4,5,8,9,10,11,12,13,13a-dodecahydro-2,5,8,8-tetramethyl-12-methylene-2,4,9,11,13-pentaacetate 1-benzoate, (1R,2R,3aR,4S,5S,6E,9S,10S,11S,13R,13aS) (9CI) (CA INDEX NAME)

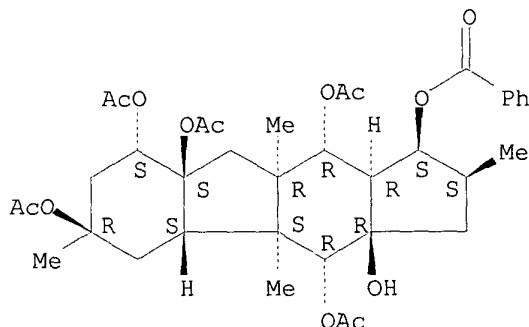
Absolute stereochemistry.  
Double bond geometry as described by E or Z.



RN 210108-91-1 HCPLUS

CN Cyclopenta[b]fluorene-1,3a,4,6,8,8a,10(1H,4H)-heptol, dodecahydro-2,4a,6,9a-tetramethyl-, 4,6,8,8a,10-pentaacetate 1-benzoate, (1S,2S,3aR,4R,4aS,4bS,6R,8R,8aR,9aR,10R,10aR)- (9CI) (CA INDEX NAME)

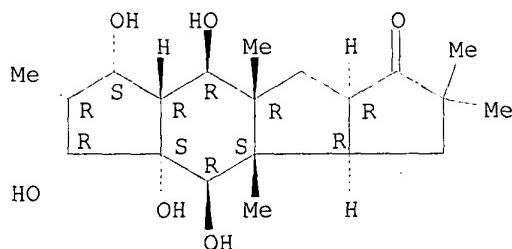
Absolute stereochemistry.



RN 214900-78-4 HCPLUS

CN 1H-Cyclopenta[a]-s-indacen-1-one, tetradecahydro-4,4a,5,7,8-pentahydroxy-2,2,3b,6,8a-pentamethyl-, (3aR,3bS,4R,4aS,5R,6R,7S,7aR,8R,8aR,9aR)-rel-(-)-(9CI) (CA INDEX NAME)

Rotation (-). Absolute stereochemistry unknown.



IT 16561-29-8, TPA (phorbol derivative)

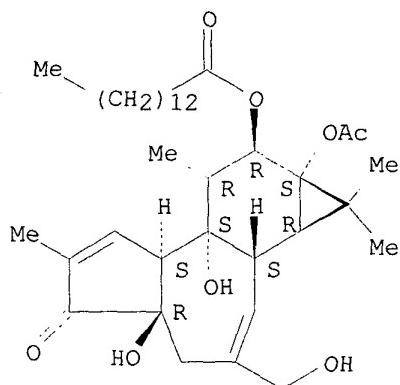
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(isolation of macrocyclic diterpenes from Euphorbiaceae and related plants with less tumor promoting capacity than TPA for treatment and prophylaxis of protein kinase C-related conditions)

RN 16561-29-8 HCPLUS

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CN Tetradecanoic acid, (1aR, 1bS, 4aR, 7aS, 7bS, 8R, 9R, 9aS)-9a-(acetyloxy)-1a, 1b, 4, 4a, 5, 7a, 7b, 8, 9, 9a-decahydro-4a, 7b-dihydroxy-3-(hydroxymethyl)-1, 1, 6, 8-tetramethyl-5-oxo-1H-cyclopropano[3, 4]benz[1, 2-e]azulen-9-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IC ICM A61K035-78

ICS A61K031-455; A61K031-22; A61P031-02; G06F019-00

CC 63-4 (Pharmaceuticals)

Section cross-reference(s): 1, 11, 62

ST macrocyclic diterpene Euphorbiaceae antiinflammatory immunostimulant; protein kinase C macrocyclic diterpene antiinflammatory immunostimulant

IT Antitumor agents

(Burkitt's lymphoma; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Leukocyte

(activation; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Skin, neoplasm

(basal cell carcinoma, inhibitors; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Antitumor agents

(basal cell carcinoma; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Diptera

(blood-sucking, sand, bites, treatment of; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Respiration, animal

(burst, induction of, in peripheral mononuclear cells; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Ovary, neoplasm

(carcinoma, inhibitors; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Polymers, uses

RL: NUU (Other use, unclassified); USES (Uses)

- (co-, arom.; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)
- IT Drug screening  
 (computer program for; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)
- IT Diterpenes  
 RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (esters; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)
- IT Gene  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (expression, protein kinase C-dependent; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)
- IT Computer program  
 (for drug screening; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)
- IT Drug delivery systems  
 (gels; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)
- IT Cell differentiation  
 (inducers; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)
- IT Neutrophil  
 (induction of invasion of, in skin; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)
- IT Mononuclear cell (leukocyte)  
 (induction of respiratory burst in; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)
- IT Peritoneum  
 (infection, streptococcal; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)
- IT Skin, disease  
 (infection; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)
- IT Skin, neoplasm  
 (inhibitors; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)
- IT Skin, disease  
 (insect bite, treatment of; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)
- IT Acalypha  
 Acidoton  
 Actinostemon  
 Adelia  
 Adenocline

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Adenocrepis  
Adenophaedra  
Adenoviridae  
Adisca  
Agrostistachys  
Alchornea  
Alchorneopsis  
Alcinaeanthus  
Alcoceria  
Aleurites  
Alphavirus  
Amanoa  
Ameba  
Andrachne  
Angostyles  
Animal virus  
Anisophyllum  
Anthelmintics  
Anti-inflammatory agents  
Antibacterial agents  
Antidesma  
Antimicrobial agents  
Antitumor agents  
Antiviral agents  
Aphora  
Apoptosis  
Aporosa  
Aporosella  
Arachnida  
Arbovirus  
Argythamnia  
Aspergillus  
Astrococcus  
Astrogyne  
Aves  
Baccaurea  
Bacillus (bacterium genus)  
Bacillus anthracis  
Balantidium coli  
Baliospermum  
Bernardia  
Beyeriopsis  
Bischofia  
Blachia  
Blastomyces dermatitidis  
Blumeodondron  
Bonania  
Bordetella  
Bordetella pertussis  
Borrelia  
Borrelia burgdorferi  
Bradleia  
Breynia  
Breyniopsis  
Briedelia  
Buraeavia  
Caletia  
Candida albicans  
Caperonia  
Caryodendron

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Celianella  
Cephalocroton  
Chaenotheca  
Chaetocarpus  
Cheilosia  
Chiropetalum  
Chlamydia  
Chlamydia trachomatis  
Choriophyllum  
Cicca  
Claoxylon  
Cleidion  
Cleistanthus  
Clostridium  
Clostridium botulinum  
Clostridium perfringens  
Clostridium tetani  
Clutia  
Cnesmone  
Cnidoscolus  
Coccoceras  
Codiaeum  
Coelodiscus  
Conami  
Conceveiba  
Conceveibastrum  
Conceveibum  
Corynebacterium  
Corynebacterium diphtheriae  
Corythea  
Cosmetics  
Croizatia  
Croton  
Crotonopsis  
Crozophora  
Cryptococcus neoformans  
Cryptosporidium  
Cubanthus  
Cunuria  
Cytomegalovirus  
Dactylostemon  
Dalechampia  
Dendrocousinsia  
Diasperus  
Didymocistus  
Dimorphocalyx  
Discocarpus  
Ditaxis  
Dodecastigma  
Drug delivery systems  
Drypetes  
Dysopsis  
Elateriospermum  
Endadenium  
Endospermum  
Entamoeba histolytica  
Epidermophyton  
Erismanthus  
Erythrocarpus  
Erythrochilus

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Escherichia  
Escherichia coli  
Eukaryota  
Eumecanthus  
Euphorbia  
Euphorbia aaron-rossii  
Euphorbia abbreviata  
Euphorbia acuta  
Euphorbia alatocaulis  
Euphorbia albicaulis  
Euphorbia albumarginata  
Euphorbia aliceae  
Euphorbia alta  
Euphorbia anacampseros  
Euphorbia andromedae  
Euphorbia angusta  
Euphorbia anthonyi  
Euphorbia antiquensis  
Euphorbia apocynifolia  
Euphorbia arabica  
Euphorbia ariensis  
Euphorbia arizonica  
Euphorbia arkansana  
Euphorbia arteagae  
Euphorbia arundelana  
Euphorbia astroites  
Euphorbia atrococca  
Euphorbia baselices  
Euphorbia batabanensis  
Euphorbia bergeri  
Euphorbia bermudiana  
Euphorbia bicolor  
Euphorbia biformis  
Euphorbia bifurcata  
Euphorbia bilobata  
Euphorbia biramensis  
Euphorbia biuncialis  
Euphorbia blepharostipula  
Euphorbia blodgettii  
Euphorbia boerhaavioides  
Euphorbia boliviiana  
Euphorbia bracei  
Euphorbia brachiata  
Euphorbia brachycera  
Euphorbia brandegeei  
Euphorbia brittonii  
Euphorbia caesia  
Euphorbia calcicola  
Euphorbia campestris  
Euphorbia candelabrum  
Euphorbia capitellata  
Euphorbia carmenensis  
Euphorbia carunculata  
Euphorbia cayensis  
Euphorbia celastroides  
Euphorbia chalicophila  
Euphorbia chamaerrhodos  
Euphorbia chamaesula  
Euphorbia chiapensis  
Euphorbia chiogenoides

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Euphorbia cinerascens  
Euphorbia clarionensis  
Euphorbia colimae  
Euphorbia colorata  
Euphorbia commutata  
Euphorbia consoquitiae  
Euphorbia convolvuloides  
Euphorbia corallifera  
Euphorbia creberrima  
Euphorbia crenulata  
Euphorbia cubensis  
Euphorbia cuspidata  
Euphorbia cymbiformis  
Euphorbia darlingtonii  
Euphorbia defoliata  
Euphorbia degeneri  
Euphorbia deltoidea  
Euphorbia dentata  
Euphorbia depressa  
Euphorbia dictyosperma  
Euphorbia dioeca  
Euphorbia discoidalis  
Euphorbia dorsiventralis  
Euphorbia drummondii  
Euphorbia duclouxii  
Euphorbia dussii  
Euphorbia eanophylla  
Euphorbia eggersii  
Euphorbia eglandulosa  
Euphorbia elata  
Euphorbia enalla  
Euphorbia eriogonoides  
Euphorbia eriophylla  
Euphorbia esculaeformis  
Euphorbia espirituensis  
Euphorbia esula  
Euphorbia excisa  
Euphorbia exclusa  
Euphorbia exstipitata  
Euphorbia exstipulata  
Euphorbia fendleri  
Euphorbia filicaulis  
Euphorbia filiformis  
Euphorbia florida  
Euphorbia fruticulosa  
Euphorbia garberi  
Euphorbia gaumerii  
Euphorbia gerardiana  
Euphorbia geyeri  
Euphorbia glyptosperma  
Euphorbia gorgonis  
Euphorbia gracilior  
Euphorbia gracillima  
Euphorbia gradyi  
Euphorbia graminea  
Euphorbia grisea  
Euphorbia guadalajarana  
Euphorbia guanarensis  
Euphorbia gymnadenia

(isolation of macrocyclic diterpenes from Euphorbiaceae and related

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plants for treatment and prophylaxis of protein kinase C-related  
conditions)

IT    *Euphorbia haematanthus*  
*Euphorbia hedyotoides*  
*Euphorbia heldrichii*  
*Euphorbia helenae*  
*Euphorbia helleri*  
*Euphorbia helwigii*  
*Euphorbia henricksonii*  
*Euphorbia heterophylla*  
*Euphorbia hexagona*  
*Euphorbia hexagonoides*  
*Euphorbia hinkleyorum*  
*Euphorbia hintonii*  
*Euphorbia hirta*  
*Euphorbia hirtula*  
*Euphorbia hooveri*  
*Euphorbia humistrata*  
*Euphorbia hypericifolia*  
*Euphorbia inundata*  
*Euphorbia involuta*  
*Euphorbia jaliscensis*  
*Euphorbia jejuna*  
*Euphorbia johnstonii*  
*Euphorbia juttae*  
*Euphorbia knuthii*  
*Euphorbia lasiocarpa*  
*Euphorbia lata*  
*Euphorbia latazi*  
*Euphorbia latericolor*  
*Euphorbia laxiflora*  
*Euphorbia lecheoides*  
*Euphorbia ledienii*  
*Euphorbia leucophylla*  
*Euphorbia lineata*  
*Euphorbia linguiformis*  
*Euphorbia longecornuta*  
*Euphorbia longepetiolata*  
*Euphorbia longeramosa*  
*Euphorbia longinsulicola*  
*Euphorbia longipila*  
*Euphorbia lupulina*  
*Euphorbia lurida*  
*Euphorbia lycioides*  
*Euphorbia macropodoides*  
*Euphorbia macvaughiana*  
*Euphorbia manca*  
*Euphorbia mandoniana*  
*Euphorbia mangleti*  
*Euphorbia mango*  
*Euphorbia marylandica*  
*Euphorbia mayana*  
*Euphorbia melanadenia*  
*Euphorbia melanocarpa*  
*Euphorbia meridensis*  
*Euphorbia mertonii*  
*Euphorbia mexiae*  
*Euphorbia microcephala*  
*Euphorbia microclada*  
*Euphorbia micromera*

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Euphorbia misella  
Euphorbia missurica  
Euphorbia montana  
Euphorbia montereyana  
Euphorbia multicaulis  
Euphorbia multifloris  
Euphorbia multinodis  
Euphorbia multiseta  
Euphorbia muscicola  
Euphorbia neomexicana  
Euphorbia nephraenia  
Euphorbia niqueroana  
Euphorbia oaxacana  
Euphorbia occidentalis  
Euphorbia odontadenia  
Euphorbia olivacea  
Euphorbia olowaluana  
Euphorbia ophthalmica  
Euphorbia ovata  
Euphorbia pachypoda  
Euphorbia pachyrhiza  
Euphorbia padifolia  
Euphorbia palmeri  
Euphorbia paludicola  
Euphorbia parishii  
Euphorbia parryi  
Euphorbia parviflora  
Euphorbia paxiana  
Euphorbia pediculifera  
Euphorbia peplidion  
Euphorbia peploides  
Euphorbia peplus  
Euphorbia pergamenta  
Euphorbia perlignea  
Euphorbia petaloidea  
Euphorbia petrina  
Euphorbia picachensis  
Euphorbia pilosula  
Euphorbia pinariona  
Euphorbia pinctorum  
Euphorbia pionosperma  
Euphorbia platysperma  
Euphorbia plicata  
Euphorbia poeppigii  
Euphorbia poliosperma  
Euphorbia polycarpa  
Euphorbia polycnemooides  
Euphorbia polyphylla  
Euphorbia portoricensis  
Euphorbia portulacoides  
Euphorbia portulana  
Euphorbia presliae  
Euphorbia prostrata  
Euphorbia pteroneura  
Euphorbia pycnanthema  
Euphorbia ramosa  
Euphorbia ramosa  
Euphorbia rapulum  
Euphorbia remyi  
Euphorbia retroscabra

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Euphorbia revoluta  
Euphorbia rivularis  
Euphorbia robusta  
Euphorbia rubida  
Euphorbia rubrosperma  
Euphorbia rupicola  
Euphorbia sanmartensis  
Euphorbia saxatilis  
Euphorbia schizoloba  
Euphorbia sclerocyathium  
Euphorbia scopulorum  
Euphorbia senilis  
Euphorbia serpyllifolia  
Euphorbia serrula  
Euphorbia setiloba  
Euphorbia sonorae  
Euphorbia soobyi  
Euphorbia sparsiflora  
Euphorbia sphaerosperma  
Euphorbia spruceana  
Euphorbia stellata  
Euphorbia subcoerulea  
Euphorbia submammilaris  
Euphorbia subpeltata  
Euphorbia subpubens  
Euphorbia subreniforme  
Euphorbia subtrifoliata  
Euphorbia succedanea  
Euphorbia syphilitica  
Euphorbia tamaulipasana  
Euphorbia telephioides  
Euphorbia tenuissima  
Euphorbia tetrapora  
Euphorbia tirucalli  
Euphorbia tomentella  
Euphorbia tomentosa  
Euphorbia torralbasii  
Euphorbia tovarensis  
Euphorbia trachysperma  
Euphorbia tricolor  
Euphorbia troyana  
Euphorbia tuerckheimii  
Euphorbia turczaninowii  
Euphorbia umbellulata  
Euphorbia undulata  
Euphorbia vermiformis  
Euphorbia versicolor  
Euphorbia villifera  
Euphorbia violacea  
Euphorbia whitei  
Euphorbia xanti  
Euphorbia xylopoda  
Euphorbia yayalesia  
Euphorbia yungasensis  
Euphorbia zeravschanica  
Euphorbia zinniiflora  
Euphorbiaceae  
Euphorbiiodendron  
Excoecaria  
Fluggea

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Fungi  
Fungicides  
Garcia  
Gavarretia  
Gelonium  
Gene therapy  
Giardia lamblia  
Givotia  
Glochidion  
Glochidionopsis  
Glycydendron  
Gymnanthes  
Gymnosporia  
Haematospermum  
Haemophilus  
Haemophilus influenzae  
Hendecandras  
Hepatitis A virus  
Hepatitis B virus  
Hepatitis C virus  
Hevea  
Hieronima  
Hippocrandra  
Histoplasma capsulatum  
Homalanthus  
Human  
Human T-lymphotropic virus 1  
Human T-lymphotropic virus 2  
Human adenovirus 5  
Human herpesvirus  
Human herpesvirus 3  
Human herpesvirus 4  
Human immunodeficiency virus 1  
Human poliovirus  
Hymenocardia  
Immunostimulants  
Influenza A virus  
Influenza B virus  
Insecta  
Janipha  
Jatropho  
Julocroton  
Klebsiella  
Klebsiella pneumoniae  
Lasiocroton  
Legionella  
Legionella pneumophila  
Leiocarpus  
Leishmania  
Leonardia  
Lepidanthus  
Leucocroton  
Listeria  
Listeria monocytogenes  
Mabea  
Macaranga  
Macrocroton  
Mallotus (plant)  
Mammalia  
Manihot

Mappa  
Maprounea  
Measles virus  
Melanthesa  
Mercurialis  
Mettenia  
(isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)  
IT Micrandra  
Microdesmis  
Microelus  
Microsporum  
Microstachys  
Monadenium  
Mozinna  
Mumps virus  
Mycobacterium  
Mycobacterium leprae  
Mycobacterium tuberculosis  
Mycoplasma  
Mycoplasma pneumoniae  
Neisseria  
Neisseria gonorrhoeae  
Neisseria meningitidis  
Nematoda  
Neoscortechinia  
Omalanthus  
Omphalea  
Ophellantha  
Orbicularia  
Ostodes  
Oxydectes  
Palenga  
Pantadenia  
Papovaviridae  
Paradrypetes  
Parasiticides  
Pausandra  
Pedilanthus  
Pera  
Peridium  
Petalostigma  
Phyllanthus  
Picrodendron  
Pierardia  
Pilinophytum  
Pimeleodendron  
Piranhea  
Platygyna  
Plukenetia  
Pneumocystis carinii  
Podocalyx  
Poinsettia  
Poraresia  
Poxviridae  
Primates  
Prokaryote  
Propionibacterium  
Propionibacterium acnes

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Prosartema  
Pseudanthus  
Pycn coma  
Quadrasia  
Rabies virus  
Reverchonia  
Rhinovirus  
Richeria  
Richeriaella  
Ricinella  
Ricinocarpos  
Rickettsia  
Rickettsia rickettsi  
Rottlera  
Rubella virus  
Sagotia  
Salmonella  
Salmonella typhi  
Salmonella typhimurium  
Sandwithia  
Sapium  
Savia  
Sclerocroton  
Sebastiania  
Securinega  
Senefeldera  
Senefelderopsis  
Serophyton  
Shigella  
Shigella dysenteriae  
Siphonia  
Skin preparations (pharmaceutical)  
Spathiostemon  
Spixia  
Staphylococcus  
Staphylococcus aureus  
Stillingia  
Streptococcus  
Streptococcus pneumoniae  
Streptococcus pyogenes  
Strophio blachia  
Synadenium  
Tetracoccus  
Tetraplandra  
Tetrorchidium  
Thysanthera  
Tithymalus  
Toxoplasma gondii  
Tragia  
Treponema  
Treponema pallidum  
Trewia  
Trichomonas vaginalis  
Trichophyton  
Trichophyton mentagrophytes mentagrophytes  
Trigonostemon  
Trypanosoma cruzi  
Trypanosoma gambiense  
Tyria  
Ureaplasma

Ureaplasma parvum  
Vaccinia virus  
Variola virus  
Venoms  
Vibrio  
Vibrio cholerae  
Worm  
Xylophylla  
Yeast  
Yersinia  
Yersinia pestis  
(isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Toxins  
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Alcohols, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Amides, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Ethers, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Ketones, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Cell activation  
(leukocyte; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Diterpenes  
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(macrocyclic; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Antitumor agents  
(melanoma; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Lymphocyte  
(natural killer cell, stimulation of; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Skin  
(neutrophil invasion in, induction of; isolation of macrocyclic

diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Adsorbents  
(nonionic porous; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Animal  
(nonmammalian; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Drug delivery systems  
(ointments, creams; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Solvents  
(org.; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Antitumor agents  
(ovary carcinoma; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Virus vectors  
(promoters; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Tinea (skin disease)  
(ringworm; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Culicidae  
(skin bites, treatment of; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Antitumor agents  
(skin; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Phagocytosis  
(stimulation of; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Organic compounds, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(sulfur-contg.; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Drug delivery systems  
(tinctures; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT Drug delivery systems  
(topical; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

IT 515-25-3 6340-41-6  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(carrier; isolation of macrocyclic diterpenes from Euphorbiaceae and related plants for treatment and prophylaxis of protein kinase C-related conditions)

- IT **141436-78-4**, Protein kinase C  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(isolation of macrocyclic diterpenes from Euphorbiaceae and related  
plants for treatment and prophylaxis of protein kinase C-related  
conditions)
- IT **67-56-1**, Methanol, uses **141-78-6**, Ethyl acetate, uses  
**9041-37-6**, Sephadex LH 20 **9060-05-3**, Amberlite XAD-2  
**11104-40-8**, Amberlite XAD-8 **37380-42-0**, Amberlite XAD-4  
**37380-43-1**, Amberlite XAD-7 **104219-63-8**, Amberlite  
XAD-16  
RL: NUU (Other use, unclassified); USES (Uses)  
(isolation of macrocyclic diterpenes from Euphorbiaceae and related  
plants for treatment and prophylaxis of protein kinase C-related  
conditions)
- IT **67707-88-4P**, Ingenane **82425-35-2P**  
**210108-85-3P**, Jatrophane 1 **210108-86-4P**, Jatrophane 2  
**210108-87-5P**, Jatrophane 3 **210108-88-6P**, Jatrophane 4  
**210108-89-7P**, Jatrophane 5 **210108-90-0P**, Jatrophane 6  
**210108-91-1P**, Pepluane **214900-78-4DP**, derivs.  
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU  
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
(Uses)  
(isolation of macrocyclic diterpenes from Euphorbiaceae and related  
plants for treatment and prophylaxis of protein kinase C-related  
conditions)
- IT **16561-29-8**, TPA (phorbol derivative)  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(isolation of macrocyclic diterpenes from Euphorbiaceae and related  
plants with less tumor promoting capacity than TPA for treatment and  
prophylaxis of protein kinase C-related conditions)
- REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L4 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2001:903879 HCAPLUS  
DOCUMENT NUMBER: 136:31656  
TITLE: Euphorbiaceae macrocyclic diterpenes for the treatment  
of infection and PKC-related conditions  
INVENTOR(S): Aylward, James Harrison; Parsons, Peter  
Gordon; Suhrbier, Andreas; Turner, Kathleen Anne  
PATENT ASSIGNEE(S): Peplin Research Pty. Ltd., Australia  
SOURCE: PCT Int. Appl., 179 pp.  
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FAMILY ACC. NUM. COUNT: 3  
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WO 2001093883	A1	20011213	WO 2001-AU678	20010607
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 748542	B2	20020606	AU 2001-73732	20010607
PRIORITY APPLN. INFO.:			AU 2000-8017	A 20000607
			WO 2001-AU678	W 20010607

OTHER SOURCE(S): MARPAT 136:31656

AB The invention relates generally to chem. agents useful in the treatment and prophylaxis of infection by pathogenic or potentially pathogenic entities, or entities capable of opportunistic infection in mammals, including humans and primates, non-mammalian animals and avian species. More particularly, the invention provides a chem. agent of the macrocyclic diterpene family obtainable from a member of the Euphorbiaceae family of plants or botanical or horticultural relatives thereof or derivs. or chem. analogs or chem. synthetic forms of the agents for use in the treatment or prophylaxis of infection by pathogenic entities in mammalian, animal and avian subjects. The invention further provides a method for the prophylaxis and/or treatment in mammalian, animal or avian subjects of infection or potential infection by pathogenic entities by the topical or systemic administration of a macrocyclic diterpene obtainable from a member of the Euphorbiaceae family of plants or their botanical or horticultural derivs. or a deriv., chem. analog or chem. synthetic form of the agent. The chem. agent of the invention may be in the form of a purified compd., mixt. of compds., a precursor form of one or more of the compds. capable of chem. transformation into a therapeutically active agent or in the form of a chem. fraction, subfraction, prepn. or ext. of the plant.

IT 16561-29-8, Pma 37558-16-0, Phorbol dibutyrate  
141436-78-4, Protein kinase C

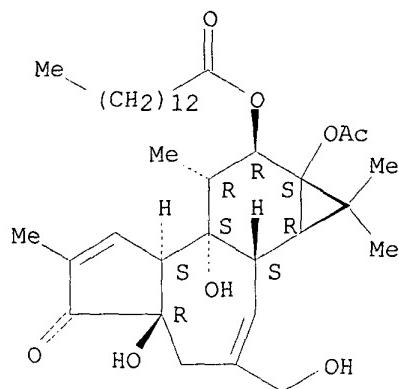
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(Euphorbiaceae macrocyclic diterpene for treatment of infection and  
PKC-related conditions)

RN 16561-29-8 HCAPLUS

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CN Tetradecanoic acid, (1aR,1bS,4aR,7aS,7bS,8R,9R,9aS)-9a-(acetyloxy)-1a,1b,4,4a,5,7a,7b,8,9,9a-decahydro-4a,7b-dihydroxy-3-(hydroxymethyl)-1,1,6,8-tetramethyl-5-oxo-1H-cyclopropano[3,4]benz[1,2-e]azulen-9-yl ester (9CI) (CA INDEX NAME)

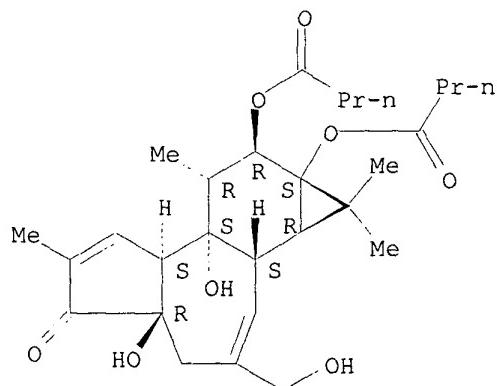
Absolute stereochemistry.



RN 37558-16-0 HCPLUS

CN Butanoic acid, (1aR,1bS,4aR,7aS,7bS,8R,9R,9aS)-1,1a,1b,4,4a,5,7a,7b,8,9-decahydro-4a,7b-dihydroxy-3-(hydroxymethyl)-1,1,6,8-tetramethyl-5-oxo-9aH-cyclopropano[3,4]benz[1,2-e]azulene-9,9a-diyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 141436-78-4 HCPLUS

CN Kinase (phosphorylating), protein, C (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 67707-88-4, Ingenane 67707-88-4D,  
Ingenane, derivs. 75567-37-2 82425-35-2  
210108-85-3, Jatrophane 1 210108-85-3D, Jatrophane 1,  
derivs. 210108-86-4, Jatrophane 2 210108-86-4D,  
Jatrophane 2, derivs. 210108-87-5, Jatrophane 3  
210108-87-5D, Jatrophane 3, derivs. 210108-88-6,  
Jatrophane 4 210108-88-6D, Jatrophane 4, derivs.  
210108-89-7, Jatrophane 5 210108-89-7D, Jatrophane 5,

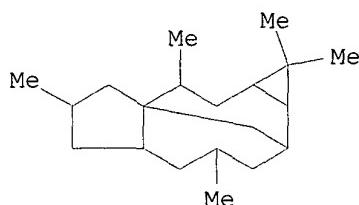
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derivs. 210108-90-0, Jatrophane 6 210108-90-0D,  
Jatrophane 6, derivs.

RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU  
(Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
(Euphorbiaceae macrocyclic diterpene for treatment of infection and  
PKC-related conditions)

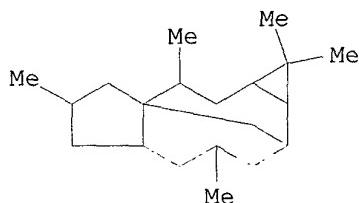
RN 67707-88-4 HCAPLUS

CN 1H-2,8a-Methanocyclopenta[a]cyclopropa[e]cyclodecene, dodecahydro-  
1,1,4,7,9-pentamethyl-, (1aS,2R,4R,5aR,7R,8aR,9R,10aR)- (9CI) (CA INDEX  
NAME)



RN 67707-88-4 HCAPLUS

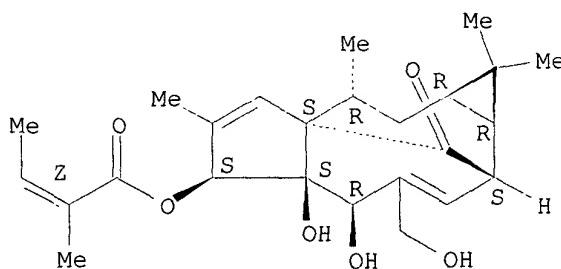
CN 1H-2,8a-Methanocyclopenta[a]cyclopropa[e]cyclodecene, dodecahydro-  
1,1,4,7,9-pentamethyl-, (1aS,2R,4R,5aR,7R,8aR,9R,10aR)- (9CI) (CA INDEX  
NAME)



RN 75567-37-2 HCAPLUS

CN 2-Butenoic acid, 2-methyl-, (1aR,2S,5R,5aS,6S,8aS,9R,10aR)-  
1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-4-(hydroxymethyl)-1,1,7,9-  
tetramethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropa[e]cyclodecen-6-  
yl ester, (2Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).  
Double bond geometry as shown.

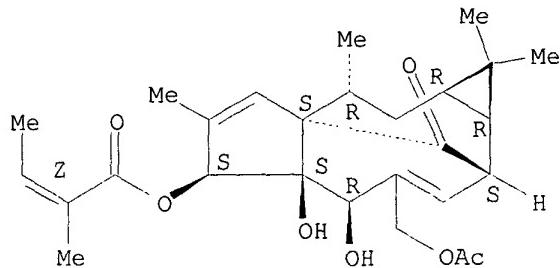


RN 82425-35-2 HCAPLUS

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CN 2-Butenoic acid, 2-methyl-, (1aR,2S,5R,5aS,6S,8aS,9R,10aR)-4-[(acetoxy)methyl]-1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-1,1,7,9-tetramethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropa[e]cyclodecen-6-yl ester, (2Z)- (9CI) (CA INDEX NAME)

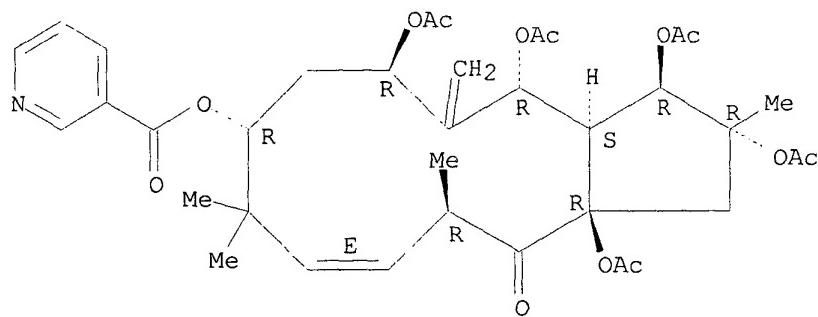
Absolute stereochemistry. Rotation (+).  
Double bond geometry as shown.



RN 210108-85-3 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6R,8R,10E,12R,13aR)-2,3,4,6,13a-pentakis(acetoxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-2,9,9,12-tetramethyl-5-methylene-13-oxo-1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

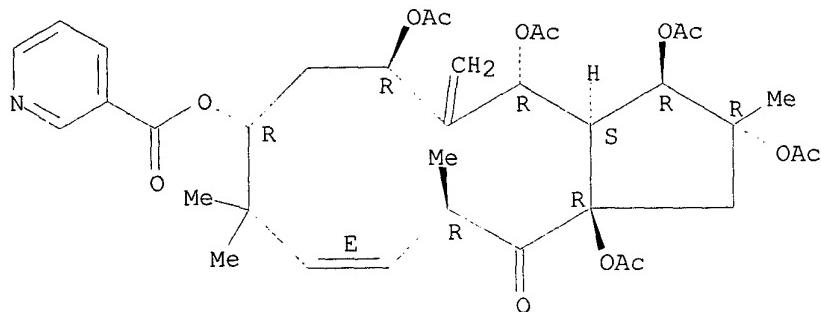
Absolute stereochemistry. Rotation (-).  
Double bond geometry as described by E or Z.



RN 210108-85-3 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6R,8R,10E,12R,13aR)-2,3,4,6,13a-pentakis(acetoxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-2,9,9,12-tetramethyl-5-methylene-13-oxo-1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

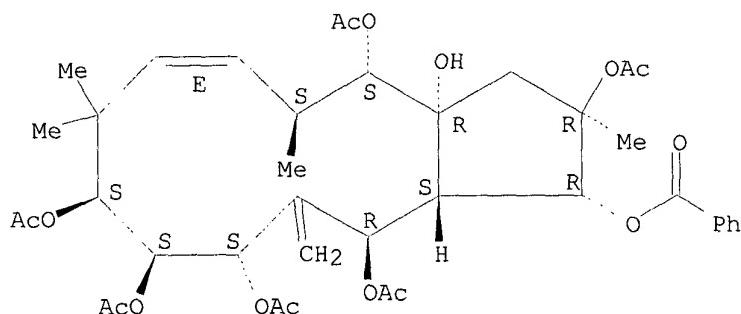
Absolute stereochemistry. Rotation (-).  
Double bond geometry as described by E or Z.



RN 210108-86-4 HCPLUS

CN 3aH-Cyclopentacyclododecene-1,2,3a,4,9,10,11,13-octol,  
1,2,3,4,5,8,9,10,11,12,13,13a-dodecahydro-2,5,8,8-tetramethyl-12-methylene-  
, 2,4,9,10,11,13-hexaacetate 1-benzoate, (1R,2R,3aR,4S,5S,6E,9S,10S,11S,13  
R,13aS)- (9CI) (CA INDEX NAME)

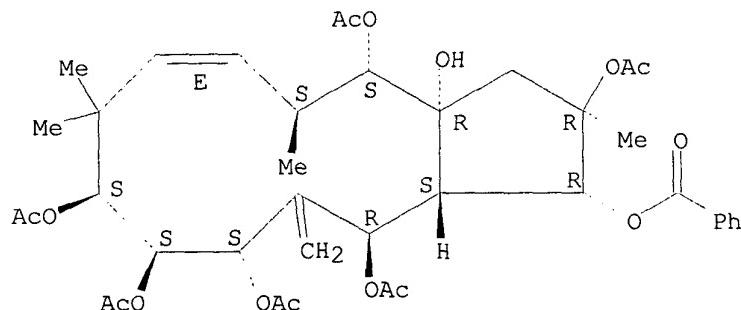
Absolute stereochemistry. Rotation (-).  
Double bond geometry as described by E or Z.



RN 210108-86-4 HCPLUS

CN 3aH-Cyclopentacyclododecene-1,2,3a,4,9,10,11,13-octol,  
1,2,3,4,5,8,9,10,11,12,13,13a-dodecahydro-2,5,8,8-tetramethyl-12-methylene-  
, 2,4,9,10,11,13-hexaacetate 1-benzoate, (1R,2R,3aR,4S,5S,6E,9S,10S,11S,13  
R,13aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
Double bond geometry as described by E or Z.

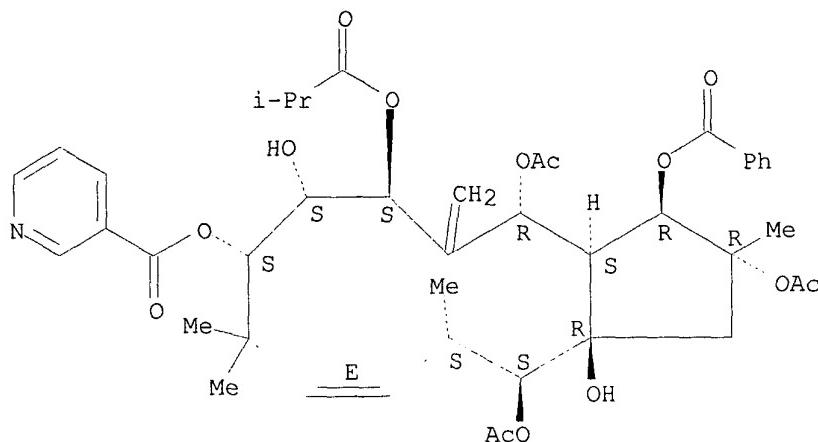


RN 210108-87-5 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-2,4,13-tris(acetyloxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-6-(2-methyl-1-oxopropoxy)-1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

Double bond geometry as described by E or Z.

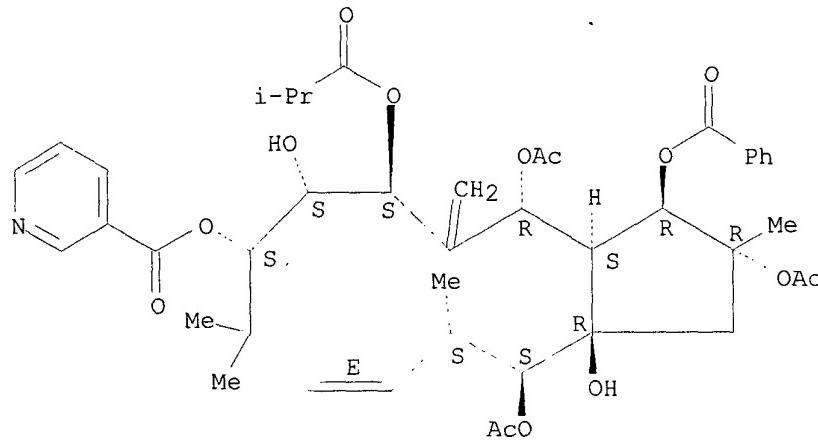


RN 210108-87-5 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-2,4,13-tris(acetyloxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-6-(2-methyl-1-oxopropoxy)-1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

Double bond geometry as described by E or Z.

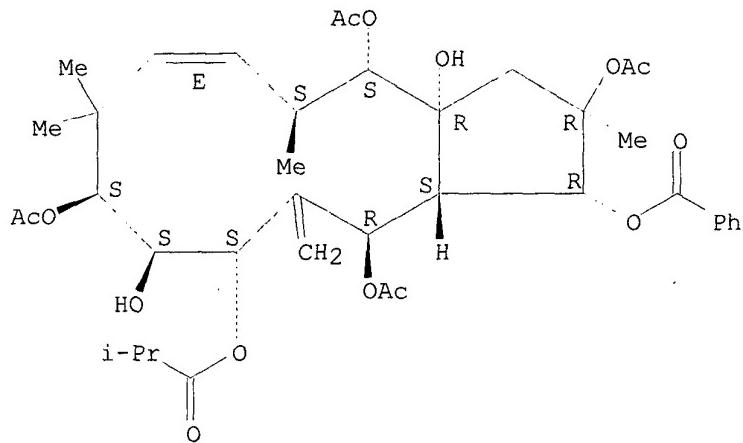


RN 210108-88-6 HCPLUS

CN Propanoic acid, 2-methyl-, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-2,4,8,13-tetrakis(acetyloxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-1H-cyclopentacyclododecen-6-yl ester (9CI) (CA INDEX NAME)

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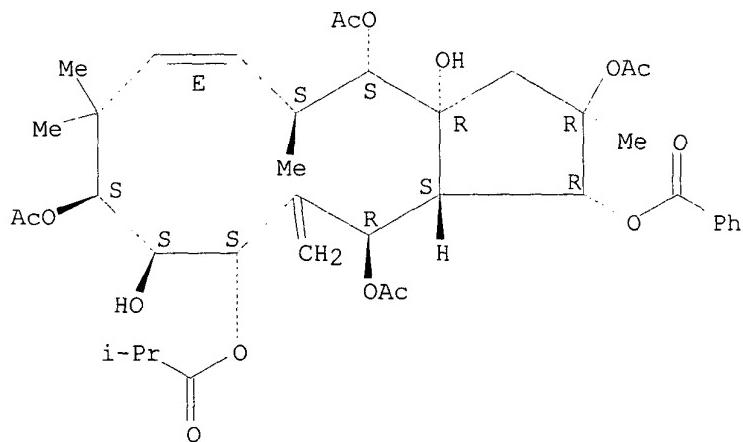
Absolute stereochemistry. Rotation (+).  
Double bond geometry as described by E or Z.



RN 210108-88-6 HCPLUS

CN Propanoic acid, 2-methyl-, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-2,4,8,13-tetrakis(acetoxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-1H-cyclopentacyclododec-6-yl ester (9CI) (CA INDEX NAME)

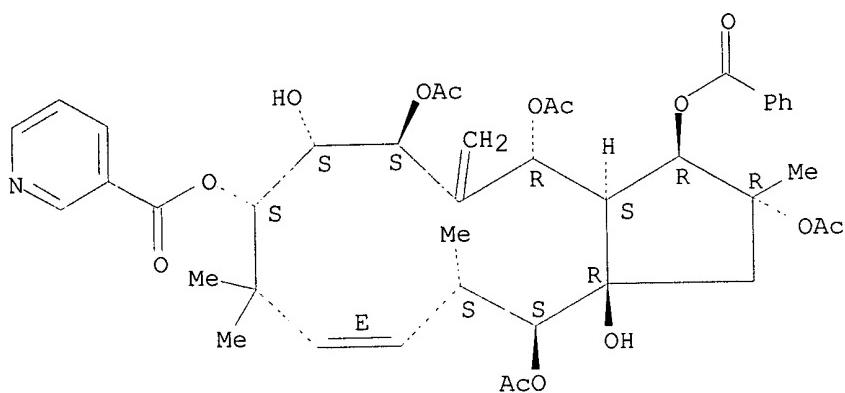
Absolute stereochemistry. Rotation (+).  
Double bond geometry as described by E or Z.



RN 210108-89-7 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-2,4,6,13-tetrakis(acetoxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-1H-cyclopentacyclododec-8-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).  
Double bond geometry as described by E or Z.

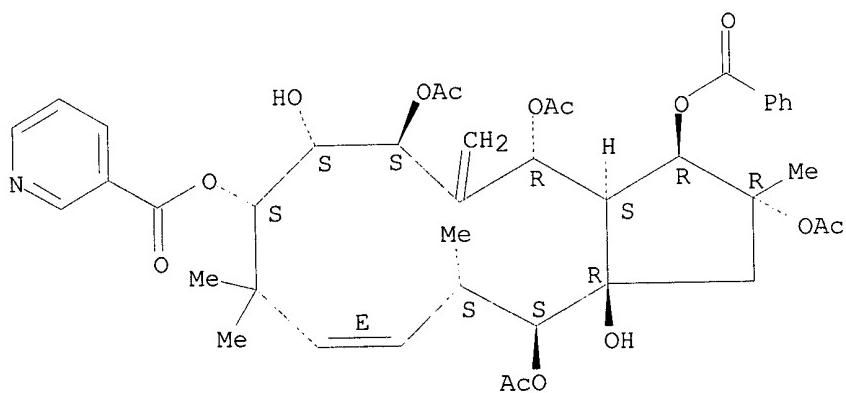


RN 210108-89-7 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-3,4,6,13-tetrakis(acetyloxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

Double bond geometry as described by E or Z.

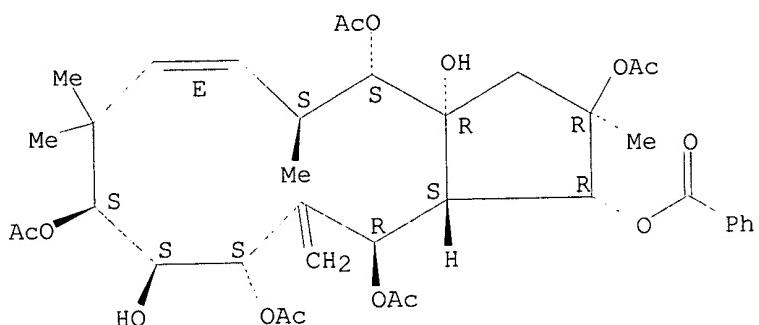


RN 210108-90-0 HCPLUS

CN 3aH-Cyclopentacyclododecene-1,2,3a,4,9,10,11,13-octol, 3aH-Cyclopentacyclododecene-1,2,3a,4,9,10,11,12,13,13a-dodecahydro-2,5,8,8-tetramethyl-12-methylene-2,4,9,11,13-pentaacetate 1-benzoate, (1R,2R,3aR,4S,5S,6E,9S,10S,11S,13R,13aS)- (9CI) (CA INDEX NAME)

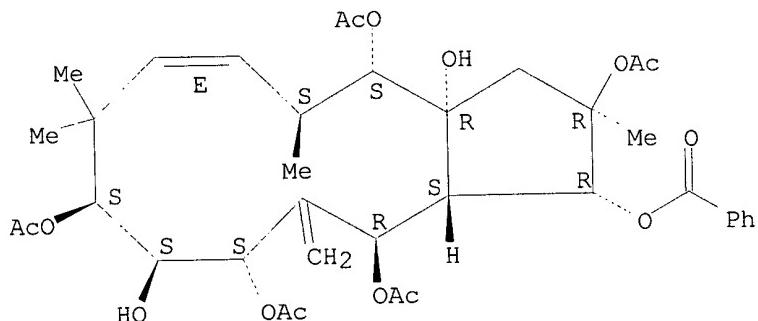
Absolute stereochemistry.

Double bond geometry as described by E or Z.

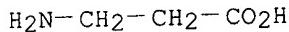


RN 210108-90-0 HCPLUS  
 CN 3aH-Cyclopentacyclododecene-1,2,3a,4,9,10,11,13-octol,  
 1,2,3,4,5,8,9,10,11,12,13,13a-dodecahydro-2,5,8,8-tetramethyl-12-methylene-  
 , 2,4,9,11,13-pentaacetate 1-benzoate, (1R,2R,3aR,4S,5S,6E,9S,10S,11S,13R,  
 13aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as described by E or Z.



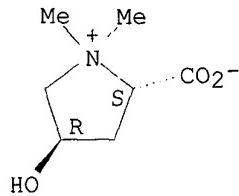
IT 107-95-9, .beta.-Alanine 515-25-3 590-46-5,  
 Betaine hydrochloride  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (carrier; Euphorbiaceae macrocyclic diterpene for treatment of  
 infection and PKC-related conditions)  
 RN 107-95-9 HCPLUS  
 CN .beta.-Alanine (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 515-25-3 HCPLUS  
 CN Pyrrolidinium, 2-carboxy-4-hydroxy-1,1-dimethyl-, inner salt, (2S,4R)-  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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RN 590-46-5 HCPLUS  
CN Methanaminium, 1-carboxy-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

$\text{Me}_3^+\text{N}-\text{CH}_2-\text{CO}_2\text{H}$

● Cl<sup>-</sup>

IC ICM A61K035-78  
ICS A61K031-455; A61K031-22; A61P031-02; G06F019-00  
CC 1-5 (Pharmacology)  
Section cross-reference(s): 63  
ST Euphorbiaceae macrocyclic diterpene antiinfective; PKC disease  
Euphorbiaceae macrocyclic diterpene  
IT Acalypha  
Acidoton  
Actinostemon  
Adelia  
Adenocline  
Adenocrepis  
Adenophaedra  
Adisca  
Agrostistachys  
Alchornea  
Alchorneopsis  
Alcinaeanthus  
Alcoceria  
Alcoholism  
Aleurites  
Amanoa  
Andrachne  
Angostyles  
Anisophyllum  
Anti-Alzheimer's agents  
Anti-infective agents  
Anti-inflammatory agents  
Anti-ischemic agents  
Antiarthritics  
Antiasthmatics  
Antibacterial agents  
Antidepressants  
Antidesma  
Antidiabetic agents  
Antihypertensives  
Antirheumatic agents  
Antiviral agents

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Aphora  
Aporosa  
Aporosella  
Argythamnia  
Astrococcus  
Astrogyne  
Autoimmune disease  
Baccaurea  
Baliospermum  
Bernardia  
Beyeriopsis  
Bischofia  
Blachia  
Blumeodondron  
Bonania  
Bradleia  
Breynia  
Breyniopsis  
Briedelia  
Buraeavia  
Caletia  
Caperonia  
Cardiovascular agents  
Caryodendron  
Celianella  
Cephalocroton  
Chaenotheca  
Chaetocarpus  
Cheilosia  
Chiropetalum  
Choriophyllum  
Cicca  
Cleidion  
Cleistanthus  
Clutia  
Cnesmone  
Cnidoscolus  
Coccoceras  
Codiaeum  
Coelodiscus  
Computer application  
Computer program  
Conami  
Conceveiba  
Conceveibastrum  
Conceveibum  
Corythea  
Croizatia  
Croton  
Crotonopsis  
Crozophora  
Cubanthus  
Cunuria  
Dactylostemon  
Dalechampia  
Dendrocousinsia  
Diasperus  
Didymocistus  
Dimorphocalyx  
Discocarpus

Ditaxis  
Dodecastigma  
Drug screening  
Drypetes  
Dysopsis  
Elateriospermum  
Endadenium  
Endadenium gossweileri  
Endospermum  
Erismanthus  
Erythrocarpus  
Erythrocilus  
Eumecanthus  
Euphorbia  
Euphorbia aaron-rossii  
Euphorbia abbreviata  
Euphorbia acuta  
Euphorbia alatocaulis  
Euphorbia albicaulis  
Euphorbia albomarginata  
Euphorbia aliceae  
Euphorbia alta  
Euphorbia anacampseros  
Euphorbia andromedae  
Euphorbia angusta  
Euphorbia anthonyi  
Euphorbia antiguensis  
Euphorbia apocynifolia  
Euphorbia arabica  
Euphorbia ariensis  
Euphorbia arizonica  
Euphorbia arkansana  
Euphorbia arteagae  
Euphorbia arundelana  
Euphorbia astroites  
Euphorbia atrococca  
Euphorbia baselices  
Euphorbia batabaneensis  
Euphorbia bergeri  
Euphorbia bermudiana  
Euphorbia bicolor  
Euphorbia biformis  
Euphorbia bifurcata  
Euphorbia bilobata  
Euphorbia biramensis  
Euphorbia biuncialis  
Euphorbia blepharostipula  
Euphorbia blodgettii  
Euphorbia boerhaavioides  
Euphorbia boliviiana  
Euphorbia bracei  
Euphorbia brachiata  
Euphorbia brachycera  
Euphorbia brandegeei  
Euphorbia brittonii  
Euphorbia caesia  
Euphorbia calcicola  
Euphorbia campestris  
Euphorbia candelabrum  
Euphorbia capitellata

Euphorbia carmenensis  
Euphorbia carunculata  
Euphorbia cayensis  
Euphorbia celastroides  
Euphorbia chalicophila  
Euphorbia chamaerrhodos  
Euphorbia chamaesula  
Euphorbia chiapensis  
Euphorbia chiogenoides  
Euphorbia cinerascens  
Euphorbia clarionensis  
Euphorbia colimae  
Euphorbia colorata  
Euphorbia commutata  
Euphorbia consoquitiae  
Euphorbia convolvuloides  
Euphorbia corallifera  
Euphorbia creberrima  
Euphorbia crenulata  
Euphorbia cubensis  
Euphorbia cuspidata  
Euphorbia cymbiformis  
Euphorbia darlingtonii  
Euphorbia defoliata  
Euphorbia degeneri  
Euphorbia deltoidea  
Euphorbia dentata  
Euphorbia depressa  
Euphorbia dictyosperma  
Euphorbia dioeca  
Euphorbia discoidalis  
Euphorbia dorsiventralis  
Euphorbia drummondii  
Euphorbia duclouxii  
Euphorbia dussii  
Euphorbia eanophylla  
Euphorbia eggersii  
Euphorbia eglandulosa  
Euphorbia elata  
Euphorbia enalla  
Euphorbia eriogonoides  
Euphorbia eriophylla  
Euphorbia esculaeformis  
Euphorbia espirituensis  
Euphorbia esula  
Euphorbia excisa  
Euphorbia exclusa  
Euphorbia exstipitata  
Euphorbia exstipulata  
Euphorbia fendleri  
Euphorbia filicaulis  
Euphorbia filiformis  
Euphorbia florida  
Euphorbia fruticulosa  
Euphorbia garberi  
Euphorbia gaumerii  
Euphorbia gerardiana  
Euphorbia geyeri  
Euphorbia glyptosperma  
Euphorbia gorgonis

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Euphorbia gracilior  
Euphorbia gracillima  
Euphorbia gradyi  
Euphorbia graminea  
Euphorbia graminea  
Euphorbia grisea  
Euphorbia guadalajarana  
Euphorbia guanarensis  
Euphorbia gymnadenia  
Euphorbia haematantha  
Euphorbia hedyotoides  
Euphorbia heldrichii  
Euphorbia helenae  
Euphorbia helleri  
Euphorbia helwigii  
Euphorbia henricksonii  
Euphorbia heterophylla  
Euphorbia hexagona  
Euphorbia hexagonoides  
Euphorbia hinkleyorum  
Euphorbia hintonii  
Euphorbia hirta  
Euphorbia hirtula  
Euphorbia hooveri  
Euphorbia humistrata  
Euphorbia hypericifolia  
Euphorbia inundata  
Euphorbia involuta  
Euphorbia jaliscensis  
Euphorbia jejuna  
Euphorbia johnstonii  
Euphorbia juttiae

(Euphorbiaceae macrocyclic diterpene for treatment of infection and  
PKC-related conditions)

IT Euphorbia knuthii  
Euphorbia lasiocarpa  
Euphorbia lata  
Euphorbia latazi  
Euphorbia latericolor  
Euphorbia laxiflora  
Euphorbia lecheoides  
Euphorbia ledienii  
Euphorbia leucophylla  
Euphorbia lineata  
Euphorbia linguiformis  
Euphorbia longecornuta  
Euphorbia longepetiolata  
Euphorbia longeramosa  
Euphorbia longinsulicola  
Euphorbia longipila  
Euphorbia lupulina  
Euphorbia lurida  
Euphorbia lycooides  
Euphorbia macropodooides  
Euphorbia macvaughiana  
Euphorbia manca  
Euphorbia mandoniana  
Euphorbia mangleti  
Euphorbia mango  
Euphorbia marylandica

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Euphorbia mayana  
Euphorbia melanadenia  
Euphorbia melanocarpa  
Euphorbia meridensis  
Euphorbia mertonii  
Euphorbia mexiae  
Euphorbia microcephala  
Euphorbia microclada  
Euphorbia micromera  
Euphorbia misella  
Euphorbia missurica  
Euphorbia montana  
Euphorbia montereyana  
Euphorbia multicaulis  
Euphorbia multiformis  
Euphorbia multinodis  
Euphorbia multiseta  
Euphorbia muscicola  
Euphorbia neomexicana  
Euphorbia nephraenia  
Euphorbia niqueroana  
Euphorbia oaxacana  
Euphorbia occidentalis  
Euphorbia odontodenia  
Euphorbia olivacea  
Euphorbia olowaluana  
Euphorbia ophthalmica  
Euphorbia ovata  
Euphorbia pachypoda  
Euphorbia pachyrhiza  
Euphorbia padifolia  
Euphorbia palmeri  
Euphorbia paludicola  
Euphorbia parishii  
Euphorbia parryi  
Euphorbia parviflora  
Euphorbia paxiana  
Euphorbia pediculifera  
Euphorbia peplidion  
Euphorbia peploides  
Euphorbia peplus  
Euphorbia pergamenta  
Euphorbia perlignea  
Euphorbia petaloidea  
Euphorbia petrina  
Euphorbia picachensis  
Euphorbia pilosula  
Euphorbia pinariona  
Euphorbia pinctorum  
Euphorbia pionosperma  
Euphorbia platysperma  
Euphorbia plicata  
Euphorbia poeppigii  
Euphorbia poliosperma  
Euphorbia polycarpa  
Euphorbia polycnemooides  
Euphorbia polyphylla  
Euphorbia portoricensis  
Euphorbia portulacoides  
Euphorbia portulana

Euphorbia preslia  
Euphorbia prostrata  
Euphorbia pteroneura  
Euphorbia pycnanthema  
Euphorbia ramosa  
Euphorbia rapulum  
Euphorbia remyi  
Euphorbia retroscabra  
Euphorbia revoluta  
Euphorbia rivularis  
Euphorbia robusta  
Euphorbia rubida  
Euphorbia rubrosperma  
Euphorbia rupicola  
Euphorbia sammartensis  
Euphorbia saxatilis  
Euphorbia schizoloba  
Euphorbia sclerocyathium  
Euphorbia scopulorum  
Euphorbia senilis  
Euphorbia serpyllifolia  
Euphorbia serrula  
Euphorbia setiloba  
Euphorbia sonorae  
Euphorbia soobyi  
Euphorbia sparsiflora  
Euphorbia sphaerosperma  
Euphorbia spruceana  
Euphorbia stellata  
Euphorbia subcoerulea  
Euphorbia submammilaris  
Euphorbia subpeltata  
Euphorbia subpubens  
Euphorbia subreniforme  
Euphorbia subtrifoliata  
Euphorbia succedanea  
Euphorbia syphilitica  
Euphorbia tamaulipasana  
Euphorbia telephioides  
Euphorbia tenuissima  
Euphorbia tetrapora  
Euphorbia tirucalli  
Euphorbia tomentella  
Euphorbia tomentosa  
Euphorbia torralbasii  
Euphorbia tovarensis  
Euphorbia trachysperma  
Euphorbia tricolor  
Euphorbia troyana  
Euphorbia tuerckheimii  
Euphorbia turczaninowii  
Euphorbia umbellulata  
Euphorbia undulata  
Euphorbia vermiformis  
Euphorbia versicolor  
Euphorbia villifera  
Euphorbia violacea  
Euphorbia whitei  
Euphorbia xanti  
Euphorbia xylopoda

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Euphorbia yayalesia  
Euphorbia yungasensis  
Euphorbia zeravschanica  
Euphorbia zinniiflora  
Euphorbiaceae  
Euphorbiodendron  
Excoecaria  
Fluggea  
Garcia  
Gavarretia  
Gelonium  
Givotia  
Glochidion  
Glochidionopsis  
Glycydendron  
Gymnanthes  
Gymnosporia  
Haematospermum  
Hendecandras  
Hevea  
Hieronima  
Hippocrapandra  
Homalanthus  
Human herpesvirus 4  
Human immunodeficiency virus 1  
Hymenocardia  
Immunostimulants  
Janipha  
Jatropha  
Julocroton  
Lasiocroton  
Leiocarpus  
Leonardia  
Lepidanthus  
Leucocroton  
Leukocyte  
Mabea  
Macaranga  
Macrocroton  
Mallotus (plant)  
Manihot  
Mappa  
Maprounea  
Melanthesa  
Mercurialis  
Mettenia  
Micrandra  
Microdesmis  
Microelus  
Microstachys  
Monadenium  
Monadenium guentheri  
Monadenium lugardae  
Mononuclear cell (leukocyte)  
Mozinna  
Neoscortechinia  
Neutrophil  
Omalanthus  
Omphalea  
Ophellantha

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Orbicularia  
Ostodes  
Oxydectes  
Palenga  
Pantadenia  
Paradrypetes  
Pausandra  
Pedilanthus  
Pera  
Peridium  
Petalostigma  
Phagocytosis  
Phyllanthus  
Picrodendron  
Pierardia  
Pilinophytum  
Pimeleodendron  
Piranhea  
Platygyna  
Plukenetia  
Podocalyx  
Poinsettia  
Poraresia  
Prosartema  
Pseudanthus  
Psoriasis  
Pycnocoma  
Quadrasia  
Reverchonia  
Richeria  
Richeriella  
Ricinella  
Ricinocarpos  
Rottlera  
Sagotia  
Sandwithia  
Sapium  
Savia  
(Euphorbiaceae macrocyclic diterpene for treatment of infection and  
PKC-related conditions)  
IT Sclerocroton  
Sebastiania  
Securinega  
Senefeldera  
Senefelderopsis  
Serophyton  
Siphonia  
Spathiostemon  
Spixia  
Stillingia  
Strophioblachia  
Synadenium  
Synadenium compactum  
Synadenium grantii  
Tetracoccus  
Tetraplandra  
Tetrorchidium  
Thysanthera  
Tithymalus  
Tragia

Transplant and Transplantation  
 Trewia  
 Trigonostemon  
 Tyria  
 Xylophylla  
     (Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)  
 IT Promoter (genetic element)  
     RL: BSU (Biological study, unclassified); BIOL (Biological study)  
         (Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)  
 IT Diterpenes  
     Macrocyclic compounds  
     RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
         (Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)  
 IT Antiarteriosclerotics  
     (antiatherosclerotics; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)  
 IT Dermatitis  
     (atopic; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)  
 IT Respiration, animal  
     (burst; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)  
 IT Ovary, neoplasm  
     (carcinoma, inhibitors; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)  
 IT Blood  
     (disease; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)  
 IT Diterpenes  
     RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
         (esters; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)  
 IT Gene  
     RL: BSU (Biological study, unclassified); BIOL (Biological study)  
         (expression, PKC-dependent; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)  
 IT Skin, disease  
     (hyperplastic dermatosis; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)  
 IT Heart, disease  
     (hypertrophy; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)  
 IT Biological transport  
     (intracellular, PKC; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)  
 IT Heart, disease  
     (ischemia; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)  
 IT Virus  
     (latent; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)  
 IT Mental disorder  
     (manic bipolar disorder; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)  
 IT Antitumor agents

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- (melanoma; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)
- IT Lymphocyte  
(natural killer cell; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)
- IT Antitumor agents  
(ovary carcinoma; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)
- IT Cytomegalovirus  
(promoter; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)
- IT Multiple sclerosis  
(therapeutic agents; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)
- IT Drug delivery systems  
(tinctures, tincture; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)
- IT Cell differentiation  
(to bipolar dendritic phenotype; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)
- IT Drug delivery systems  
(topical; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)
- IT 16561-29-8, Pma 37558-16-0, Phorbol dibutyrate  
141436-78-4, Protein kinase C  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)
- IT 67707-88-4, Ingenane 67707-88-4D,  
Ingenane, derivs. 75567-37-2 82425-35-2  
210108-85-3, Jatrophane 1 210108-85-3D, Jatrophane 1,  
derivs. 210108-86-4, Jatrophane 2 210108-86-4D,  
Jatrophane 2, derivs. 210108-87-5, Jatrophane 3  
210108-87-5D, Jatrophane 3, derivs. 210108-88-6,  
Jatrophane 4 210108-88-6D, Jatrophane 4, derivs.  
210108-89-7, Jatrophane 5 210108-89-7D, Jatrophane 5,  
derivs. 210108-90-0, Jatrophane 6 210108-90-0D,  
Jatrophane 6, derivs.  
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU  
(Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
(Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)
- IT 107-95-9, .beta.-Alanine 515-25-3 590-46-5,  
Betaine hydrochloride  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(carrier; Euphorbiaceae macrocyclic diterpene for treatment of infection and PKC-related conditions)
- REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

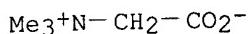
=> d ibib abs hitstr ind 5

L4 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 1999:136872 HCAPLUS .  
 DOCUMENT NUMBER: 130:205113  
 TITLE: Anticancer compounds from Euphorbia  
 INVENTOR(S): Aylward, James Harrison  
 PATENT ASSIGNEE(S): Peplin Pty. Ltd., Australia  
 SOURCE: PCT Int. Appl., 92 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9908994	A1	19990225	WO 1998-AU656	19980819
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2301082	AA	19990225	CA 1998-2301082	19980819
AU 9887217	A1	19990308	AU 1998-87217	19980819
AU 736230	B2	20010726		
EP 1015413	A1	20000705	EP 1998-938534	19980819
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9811327	A	20000919	BR 1998-11327	19980819
JP 2001515059	T2	20010918	JP 2000-509681	19980819
US 2001051644	A1	20011213	US 2001-888997	20010621
PRIORITY APPLN. INFO.:			AU 1997-8640	A 19970819
			WO 1998-AU656	W 19980819
			US 2000-486199	A3 20000728

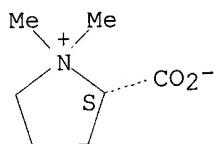
AB The invention relates to a compd. or group of compds. present in an active principle derived from plants of the species Euphorbia peplus, Euphorbia hirta, and Euphorbia drummondii, and to pharmaceutical compns. comprising these compds. Exts. from these plants have been found to show selective cytotoxicity against several different cancer cell lines. The compds. are useful in effective treatment of cancers, particularly malignant melanomas and squamous cell carcinomas. In a preferred embodiment, the compd. is selected from jatrophanes, pepluanes, paralianes and **ingenanes**, and pharmaceutically-acceptable salts or esters thereof, and more particularly jatrophanes of Conformation II.

IT 107-43-7, Glycine betaine 471-87-4, Stachydrine  
 475-11-6, N-Methylproline 515-25-3 4252-82-8  
 6340-41-6 220941-15-1  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (anticancer compds. from Euphorbia)  
 RN 107-43-7 HCAPLUS  
 CN Methanaminium, 1-carboxy-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)



RN 471-87-4 HCAPLUS  
 CN Pyrrolidinium, 2-carboxy-1,1-dimethyl-, inner salt, (2S)- (9CI) (CA INDEX NAME)

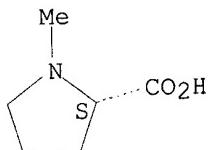
Absolute stereochemistry.



R

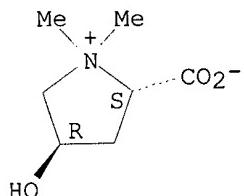
RN 475-11-6 HCAPLUS  
 CN L-Proline, 1-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



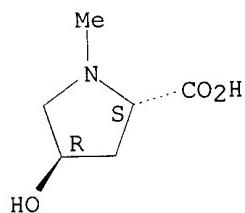
RN 515-25-3 HCAPLUS  
 CN Pyrrolidinium, 2-carboxy-4-hydroxy-1,1-dimethyl-, inner salt, (2S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 4252-82-8 HCAPLUS  
 CN L-Proline, 4-hydroxy-1-methyl-, (4R)- (9CI) (CA INDEX NAME)

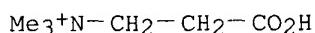
Absolute stereochemistry.



RN 6340-41-6 HCAPLUS

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CN Ethanaminium, 2-carboxy-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

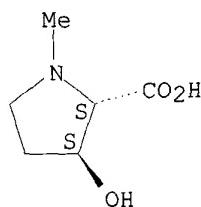


● Cl<sup>-</sup>

RN 220941-15-1 HCPLUS

CN L-Proline, 3-hydroxy-1-methyl-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 64280-37-1P 210108-85-3P, Jatrophane 1

210108-86-4P, Jatrophane 2 210108-87-5P, Jatrophane 3

210108-88-6P, Jatrophane 4 210108-89-7P, Jatrophane 5

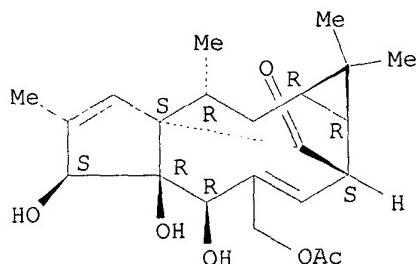
210108-90-0P, Jatrophane 6 210108-91-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (anticancer compds. from Euphorbia)

RN 64280-37-1 HCPLUS

CN 1H-2,8a-Methanocyclopenta[a]cyclopropa[e]cyclodecen-11-one,  
4-[ (acetoxy)methyl]-1a,2,5,5a,6,9,10,10a-octahydro-5,5a,6-trihydroxy-  
1,1,7,9-tetramethyl-, (1aR,2S,5R,5aR,6S,8a1S,9R,10aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

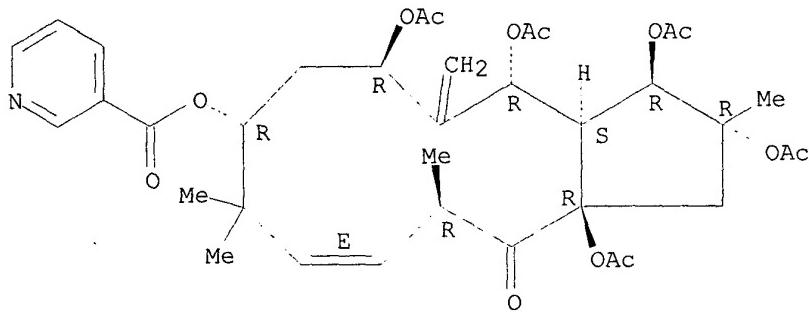


RN 210108-85-3 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6R,8R,10E,12R,13aR)-2,3,4,6,13a-pentakis(acetoxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-2,9,9,12-tetramethyl-5-methylene-13-oxo-1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

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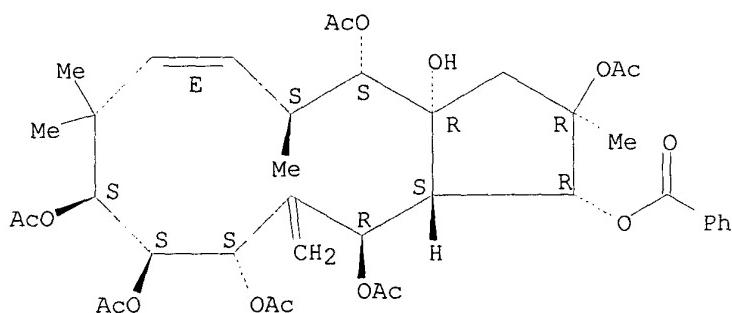
Absolute stereochemistry. Rotation (-).  
Double bond geometry as described by E or Z.



RN 210108-86-4 HCPLUS

CN 3aH-Cyclopentacyclododecene-1,2,3a,4,9,10,11,13-octol,  
1,2,3,4,5,8,9,10,11,12,13,13a-dodecahydro-2,5,8,8-tetramethyl-12-methylene-  
2,4,9,10,11,13-hexaacetate 1-benzoate, (1R,2R,3aR,4S,5S,6E,9S,10S,11S,13  
R,13aS)- (9CI) (CA INDEX NAME)

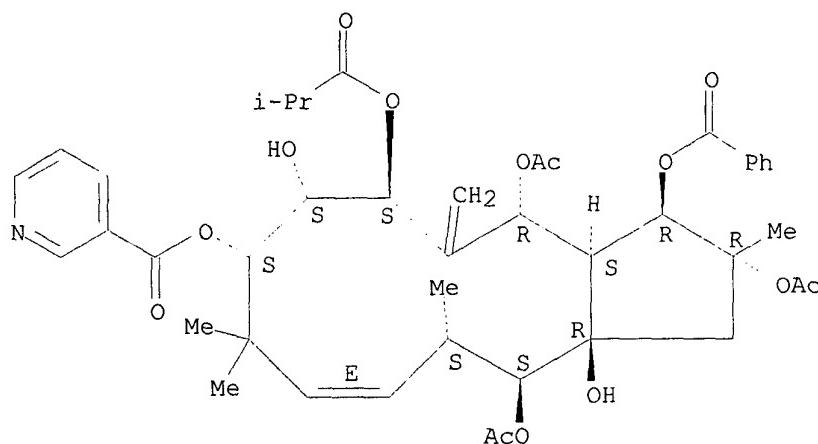
Absolute stereochemistry. Rotation (-).  
Double bond geometry as described by E or Z.



RN 210108-87-5 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-2,4,13-  
tris(acetoxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-  
7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-6-(2-methyl-1-oxopropoxy)-  
1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).  
Double bond geometry as described by E or Z.

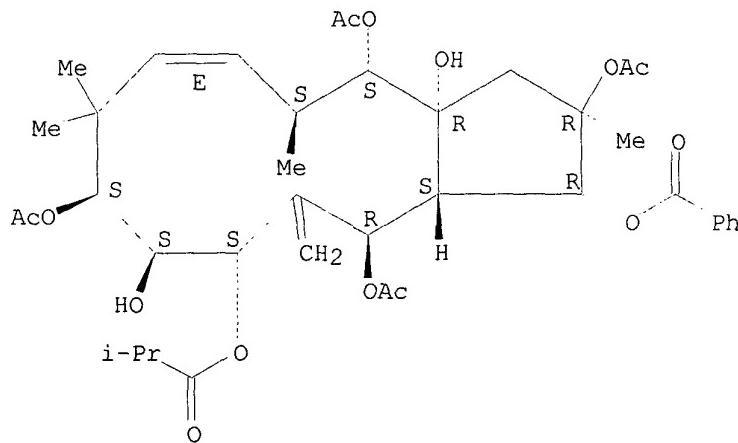


RN 210108-88-6 HCPLUS

CN Propanoic acid, 2-methyl-, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-  
2,4,8,13-tetrakis(acetoxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-  
dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-1H-  
cyclopentacyclododecen-6-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

Double bond geometry as described by E or Z.

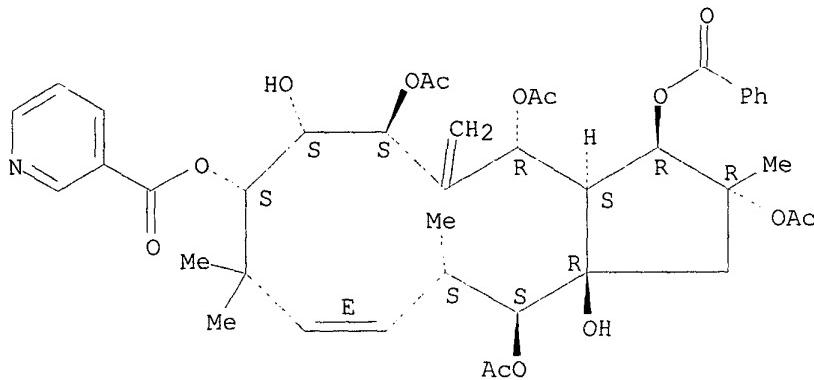


RN 210108-89-7 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6S,7S,8S,10E,12S,13S,13aR)-  
2,4,6,13-tetrakis(acetoxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-  
dodecahydro-7,13a-dihydroxy-2,9,9,12-tetramethyl-5-methylene-1H-  
cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

Double bond geometry as described by E or Z.

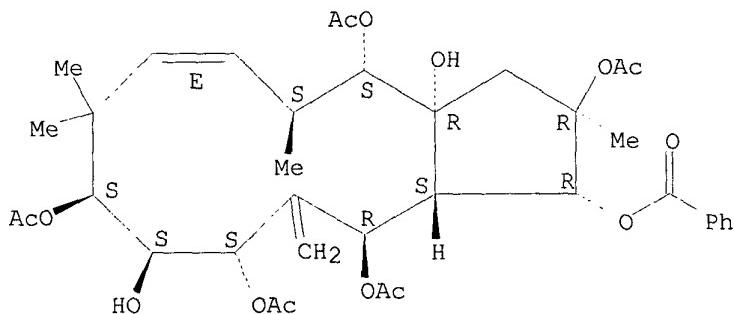


RN 210108-90-0 HCPLUS

CN 3aH-Cyclopentacyclododecene-1,2,3a,4,9,10,11,13-octol,  
1,2,3,4,5,8,9,10,11,12,13,13a-dodecahydro-2,5,8,8-tetramethyl-12-methylene-,  
2,4,9,11,13-pentaacetate 1-benzoate, (1R,2R,3aR,4S,5S,6E,9S,10S,11S,13R,  
13aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

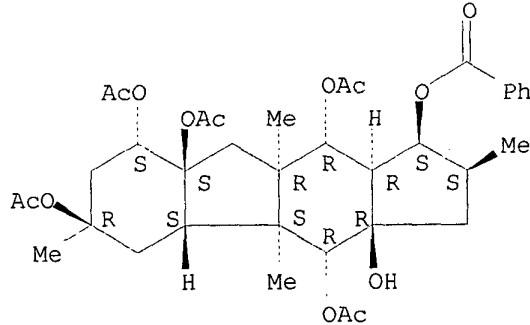
Double bond geometry as described by E or Z.



RN 210108-91-1 HCPLUS

CN Cyclopenta[b]fluorene-1,3a,4,6,8,8a,10(1H,4H)-heptol, dodecahydro-2,4a,6,9a-tetramethyl-, 4,6,8,8a,10-pentaacetate 1-benzoate, (1S,2S,3aR,4R,4aS,4bS,6R,8R,8aR,9aR,10R,10aR)- (9CI) (CA INDEX NAME)

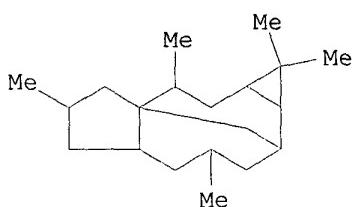
Absolute stereochemistry.



IT 67707-88-4, Ingenane 82425-35-2  
 82425-35-2D, esters 210108-91-1D, esters  
 220941-16-2D, esters 220941-18-4D, esters  
 220941-19-5D, esters 220941-20-8D, esters  
 220941-21-9D, esters 220941-22-0D, esters  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (anticancer compds. from Euphorbia)

RN 67707-88-4 HCPLUS

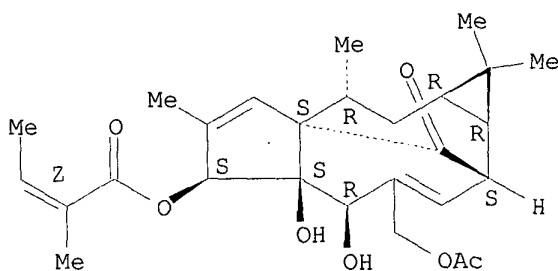
CN 1H-2, 8a-Methanocyclopenta[a]cyclopropa[e]cyclodecene, dodecahydro-1,1,4,7,9-pentamethyl-, (1aS,2R,4R,5aR,7R,8aR,9R,10aR)- (9CI) (CA INDEX NAME)



RN 82425-35-2 HCPLUS

CN 2-Butenoic acid, 2-methyl-, (1aR,2S,5R,5aS,6S,8aS,9R,10aR)-4-[(acetoxy)methyl]-1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-1,1,7,9-tetramethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropa[e]cyclodecen-6-yl ester, (Z)- (9CI) (CA INDEX NAME)

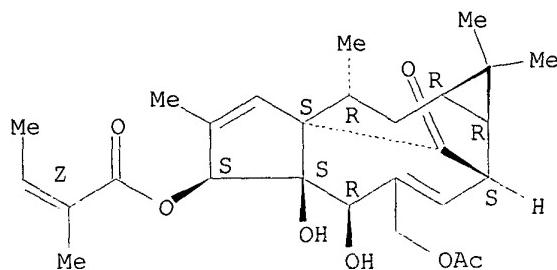
Absolute stereochemistry. Rotation (+).  
 Double bond geometry as shown.



RN 82425-35-2 HCPLUS

CN 2-Butenoic acid, 2-methyl-, (1aR,2S,5R,5aS,6S,8aS,9R,10aR)-4-[(acetoxy)methyl]-1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-1,1,7,9-tetramethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropa[e]cyclodecen-6-yl ester, (Z)- (9CI) (CA INDEX NAME)

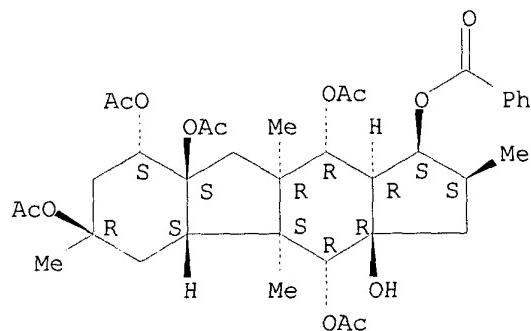
Absolute stereochemistry. Rotation (+).  
 Double bond geometry as shown.



RN 210108-91-1 HCPLUS

CN Cyclopenta[b]fluorene-1,3a,4,6,8,8a,10(1H,4H)-heptol, dodecahydro-2,4a,6,9a-tetramethyl-, 4,6,8,8a,10-pentaacetate 1-benzoate, (1S,2S,3aR,4R,4aS,4bS,6R,8R,8aR,9aR,10R,10aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

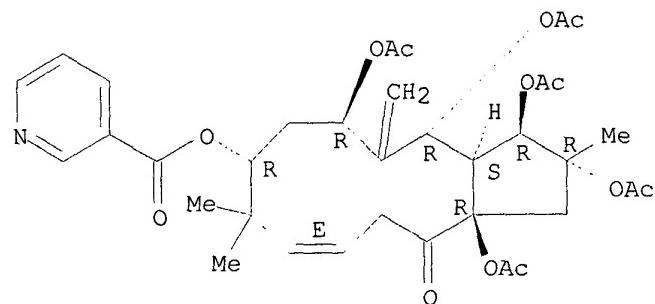


RN 220941-16-2 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6R,8R,10E,13aR)-2,3,4,6,13a-pentakis(acetyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-2,9,9-trimethyl-5-methylene-13-oxo-1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.



RN 220941-18-4 HCPLUS

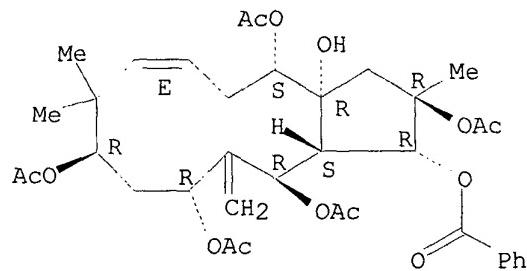
CN 3aH-Cyclopentacyclododecene-1,2,3a,4,9,11,13-heptol, 1,2,3,4,5,8,9,10,11,12,13,13a-dodecahydro-2,8,8-trimethyl-12-methylene-, 2,4,9,11,13-pentaacetate 1-benzoate, (1R,2R,3aR,4S,6E,9R,11R,13R,13aS)-

TATE 09/888, 997

(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.

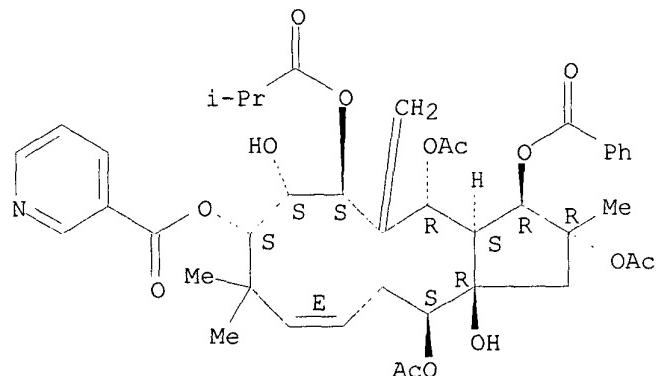


RN 220941-19-5 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6S,7S,8S,10E,13S,13aR)-2,4,13-tris(acetyloxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-7,13a-dihydroxy-2,9,9-trimethyl-5-methylene-6-(2-methyl-1-oxopropoxy)-1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.

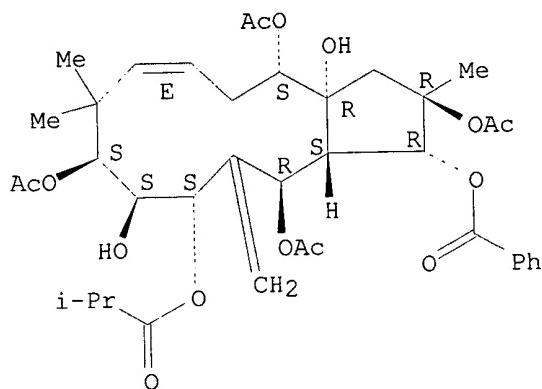


RN 220941-20-8 HCPLUS

CN Propanoic acid, 2-methyl-, (2R,3R,3aS,4R,6S,7S,8S,10E,13S,13aR)-2,4,8,13-tetrakis(acetyloxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-7,13a-dihydroxy-2,9,9-trimethyl-5-methylene-1H-cyclopentacyclododecen-6-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.

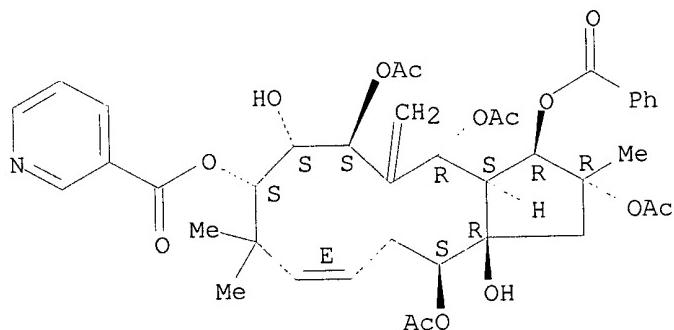


RN 220941-21-9 HCPLUS

CN 3-Pyridinecarboxylic acid, (2R,3R,3aS,4R,6S,7S,8S,10E,13S,13aR)-2,4,6,13-tetrakis(acetoxy)-3-(benzoyloxy)-2,3,3a,4,5,6,7,8,9,12,13,13a-dodecahydro-7,13a-dihydroxy-2,9,9-trimethyl-5-methylene-1H-cyclopentacyclododecen-8-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.

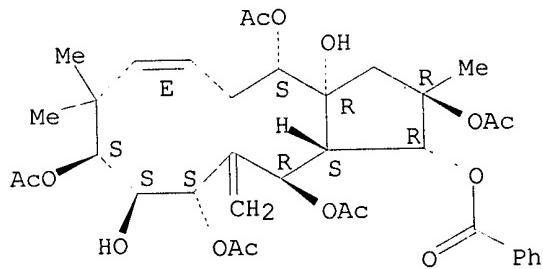


RN 220941-22-0 HCPLUS

CN 3aH-Cyclopentacyclododecene-1,2,3a,4,9,10,11,13-octol, 1,2,3,4,5,8,9,10,11,12,13,13a-dodecahydro-2,8,8-trimethyl-12-methylene-2,4,9,11,13-pentaacetate 1-benzoate, (1R,2R,3aR,4S,6E,9S,10S,11S,13R,13aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.



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IT 9001-87-0, Phospholipase D 9075-81-4, Sialyltransferase  
151185-16-9, Fibroblast growth factor 9  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(gene; anticancer compds. from Euphorbia)  
RN 9001-87-0 HCAPLUS  
CN Phospholipase D (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
RN 9075-81-4 HCAPLUS  
CN Sialyltransferase, cytidine monophosphoacetylneuraminate-  
galactosylglycoprotein (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
RN 151185-16-9 HCAPLUS  
CN Fibroblast growth factor 9 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
IT 10028-15-6, Ozone, biological studies  
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(skin damage from exposure to; anticancer compds. from Euphorbia)  
RN 10028-15-6 HCAPLUS  
CN Ozone (8CI, 9CI) (CA INDEX NAME)

O--O--O

IT 141436-78-4, Protein kinase C  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(zeta, gene; anticancer compds. from Euphorbia)  
RN 141436-78-4 HCAPLUS  
CN Kinase (phosphorylating), protein, C (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
IC ICM C07C069-78  
ICS C07C069-533; C07D213-80; C07G017-00; A61K035-78; A61K031-455;  
A61K031-22; A61K031-325  
CC 1-6 (Pharmacology)  
Section cross-reference(s): 11, 63  
ST Euphorbia antitumor agent; melanoma squamous cell carcinoma Euphorbia  
compd; jatrophane pepluane paraliane **ingenane** Euphorbia  
antitumor  
IT Growth factors, animal  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(80H-K, gene; anticancer compds. from Euphorbia)  
IT Animal cell line  
(A549; anticancer compds. from Euphorbia)  
IT Cyclophilins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(B, gene; anticancer compds. from Euphorbia)  
IT Animal cell line  
(B16; anticancer compds. from Euphorbia)  
IT Animal cell line  
(Colo16; anticancer compds. from Euphorbia)  
IT DNA  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(DNA-damaging agents, adjuvant to; anticancer compds. from Euphorbia)  
IT Proteins, specific or class  
RL: BSU (Biological study, unclassified); BIOL (Biological study)

IT (GADD45, gene; anticancer compds. from Euphorbia)  
IT Heat-shock proteins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(HSP 27, gene; anticancer compds. from Euphorbia)  
IT Profilins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(II, gene; anticancer compds. from Euphorbia)  
IT Proteins, specific or class  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(LAMP7-E1, gene; anticancer compds. from Euphorbia)  
IT Animal cell line  
(LIM1215; anticancer compds. from Euphorbia)  
IT Animal cell line  
(MCC16; anticancer compds. from Euphorbia)  
IT Animal cell line  
(MCF-7; anticancer compds. from Euphorbia)  
IT Histocompatibility antigens  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(MHC (major histocompatibility complex), class I, gene; anticancer  
compds. from Euphorbia)  
IT Animal cell line  
(MM2058; anticancer compds. from Euphorbia)  
IT Animal cell line  
(MM220; anticancer compds. from Euphorbia)  
IT Animal cell line  
(MM229; anticancer compds. from Euphorbia)  
IT Animal cell line  
(MM537; anticancer compds. from Euphorbia)  
IT Animal cell line  
(MM96L; anticancer compds. from Euphorbia)  
IT Skin  
Skin  
(Merkel cell, Merkel cell carcinoma inhibitors; anticancer compds. from  
Euphorbia)  
IT Proteins, specific or class  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(P58, XP group C, gene; anticancer compds. from Euphorbia)  
IT Cell proliferation  
(T cell; anticancer compds. from Euphorbia)  
IT Proteins, specific or class  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(Wilm's tumor-related protein, gene; anticancer compds. from Euphorbia)  
IT Proteins, specific or class  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(XP group C HHR2, gene; anticancer compds. from Euphorbia)  
IT Keratosis  
(actinic; anticancer compds. from Euphorbia)  
IT Radiotherapy  
(adjuvant to; anticancer compds. from Euphorbia)  
IT Antitumor agents  
Cell proliferation  
Drug delivery systems  
Euphorbia  
Euphorbia drummondii  
Euphorbia hirta  
Euphorbia peplus  
HeLa cell  
Immunostimulants  
Radioprotectants  
(anticancer compds. from Euphorbia)

IT Skin, neoplasm  
Skin, neoplasm  
(basal cell carcinoma, inhibitors; anticancer compds. from Euphorbia)

IT Antitumor agents  
Antitumor agents  
(basal cell carcinoma; anticancer compds. from Euphorbia)

IT Antitumor agents  
(carcinoma, Merkel cell; anticancer compds. from Euphorbia)

IT Uterus, neoplasm  
(cervix, inhibitors; anticancer compds. from Euphorbia)

IT Antitumor agents  
(cervix; anticancer compds. from Euphorbia)

IT Phosphoproteins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(cofilins, gene; anticancer compds. from Euphorbia)

IT Intestine, neoplasm  
(colon, inhibitors; anticancer compds. from Euphorbia)

IT Antitumor agents  
(colon; anticancer compds. from Euphorbia)

IT Skin, disease  
(damage; anticancer compds. from Euphorbia)

IT Metallothioneins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(gene, activation; anticancer compds. from Euphorbia)

IT G proteins (guanine nucleotide-binding proteins)  
Granulocyte colony-stimulating factor receptors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(gene; anticancer compds. from Euphorbia)

IT Heat-shock proteins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(hsp 28, gene; anticancer compds. from Euphorbia)

IT Cell differentiation  
(inducers; anticancer compds. from Euphorbia)

IT Lung, neoplasm  
Skin, neoplasm  
Skin, neoplasm  
(inhibitors; anticancer compds. from Euphorbia)

IT Proteins, specific or class  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(ionizing radiation resistance (DAP3), gene; anticancer compds. from Euphorbia)

IT Antitumor agents  
(lung; anticancer compds. from Euphorbia)

IT Antitumor agents  
(mammary gland; anticancer compds. from Euphorbia)

IT Antitumor agents  
(melanoma; anticancer compds. from Euphorbia)

IT Gene, animal  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
(Biological study); PROC (Process)  
(metallothionein, activation; anticancer compds. from Euphorbia)

IT Mammary gland  
(neoplasm, inhibitors; anticancer compds. from Euphorbia)

IT Gene, animal  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
(Biological study); PROC (Process)  
(oncogene, TAX; anticancer compds. from Euphorbia)

IT Melanocyte  
(proliferation induction; anticancer compds. from Euphorbia)

IT T cell (lymphocyte)

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(proliferation; anticancer compds. from Euphorbia)  
IT Proteins, specific or class  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(retinol-binding, 1, gene; anticancer compds. from Euphorbia)  
IT Ionizing radiation  
Microwave  
UV radiation  
(skin damage from; anticancer compds. from Euphorbia)  
IT Antitumor agents  
(skin squamous cell carcinoma; anticancer compds. from Euphorbia)  
IT Antitumor agents  
Antitumor agents  
(skin; anticancer compds. from Euphorbia)  
IT Proteins, specific or class  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(small G protein TTF, gene; anticancer compds. from Euphorbia)  
IT Antitumor agents  
(solid tumor; anticancer compds. from Euphorbia)  
IT Skin, neoplasm  
(squamous cell carcinoma, inhibitors; anticancer compds. from  
Euphorbia)  
IT Antitumor agents  
(squamous cell carcinoma; anticancer compds. from Euphorbia)  
IT Tubulins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(.alpha. k1, gene; anticancer compds. from Euphorbia)  
IT Proteins, specific or class  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(.beta.-polypeptide 3, gene; anticancer compds. from Euphorbia)  
IT 107-43-7, Glycine betaine 471-87-4, Stachydrine  
475-11-6, N-Methylproline 515-25-3 4252-82-8  
6340-41-6 220941-15-1  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); BIOL (Biological study)  
(anticancer compds. from Euphorbia)  
IT 64280-37-1P 210108-85-3P, Jatrophane 1  
210108-86-4P, Jatrophane 2 210108-87-5P, Jatrophane 3  
210108-88-6P, Jatrophane 4 210108-89-7P, Jatrophane 5  
210108-90-0P, Jatrophane 6 210108-91-1P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); PUR (Purification or recovery); THU (Therapeutic  
use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(anticancer compds. from Euphorbia)  
IT 67707-88-4, Ingenane 82425-35-2  
82425-35-2D, esters 210108-91-1D, esters  
220941-16-2D, esters 220941-18-4D, esters  
220941-19-5D, esters 220941-20-8D, esters  
220941-21-9D, esters 220941-22-0D, esters  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES  
(Uses)  
(anticancer compds. from Euphorbia)  
IT 9001-87-0, Phospholipase D 9075-81-4, Sialyltransferase  
151185-16-9, Fibroblast growth factor 9  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(gene; anticancer compds. from Euphorbia)  
IT 10028-15-6, Ozone, biological studies  
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(skin damage from exposure to; anticancer compds. from Euphorbia)  
IT 141436-78-4, Protein kinase C

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RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(zeta, gene; anticancer compds. from Euphorbia).

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

8086

Attn: Susan Hanley

SEARCH REQUEST FORM

Examiner # (Mandatory): 73510

Requester's Full Name: Chris Tate

Art Unit 1654 Location (Bldg/Room#): CMI 11809 Phone (circle) 305 306 308 7114

09/888,178 and

Serial Number: 09/888,997 Results Format Preferred (circle): PAPER DISK E-MAIL

Title of Invention Methods of stimulating the immune system

Inventors (please provide full names): James H. Aylward (Australia)

Earliest Priority Date: 8/1998

Keywords (include any known synonyms registry numbers, explanation of initialisms):

immunostimula?

boost the immune system

chanc? immun?

etc.

Point of Contact:

Susan Hanley

Technical Info. Specialist

CMI 6805 Tel: 305-4053

AT my request  
Susan Hanley

Also searched  
the below compounds  
for anti-cancer  
activity → see  
09/888,178

Search Topic:

Please write detailed statement of the search topic, and the concept of the invention. Describe as specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples of relevant citations, authors, etc., if known. You may include a copy of the abstract and the broadcast or most relevant claim(s).

Please search the compounds (ingenane derivatives)  
of Clms 74-77 with respect to those  
that stimulate the immune system  
(doesn't matter where compound  
is derived from-as recited in clm 33) -Thanks

STAFF USE ONLY

Searcher: Hanley

Type of Search

Searcher Phone #: \_\_\_\_\_

N.A. Sequence

\$ 756 STN

Searcher Location: \_\_\_\_\_

A.A. Sequence

Questel/Orbit

Date Picked Up: \_\_\_\_\_

Structure (#)

Lexis/Nexis

Date Completed: 11/21

Bibliographic

WWW/Internet

Clerical Prep Time: 60

Litigation

In-house sequence systems (list)

Terminal Time: 05:85

Fulltext

Dialog

Number of Databases: \_\_\_\_\_

Procurement

Dr. Link

Westlaw

Other

Other (specify)

Tate, Christopher

From: Hanley, Susan  
Sent: Wednesday, November 13, 2002 11:33 AM  
To: Tate, Christopher  
Subject: call follow-up

(also ~~&~~ search for  
Treating cancer)

Hi Chris,  
I got your phone message regarding 09/888,997. No problem. I will include the method of treating in the search.  
I had planned to do this search next week Is that still OK? Sorry that I did not respond earlier but I've been out since Friday  
with  
the cold from hell.

Susan

09/888,997

Applicant : James Harris *Aylward*  
Serial No. : to be assigned  
Filed : June 21, 2001  
Page : 2

ney's Docket No.: 07404-003001

### AMENDMENT

Please amend the above-captioned application as follows:

*In The Specification:*

Please amend the specification as follows.

Replace the title as filed with the following new title:

*A 1*

--METHODS OF STIMULATING THE IMMUNE SYSTEM--

*A 2*

On page 1, after the title on line 1, under the heading, insert:

--CROSS-REFERENCES TO RELATED APPLICATIONS

The present application is a divisional application of United States Patent

Application Serial No. (USSN) 09/486,199, filed February 22, 2000, now pending, which was filed under 35 U.S.C. §371 based on PCT/AU98/00656, filed on August 19, 1998, which claims the benefit of priority to Australian Application No. PO-8640, filed August 19, 1997. These applications are explicitly incorporated herein by reference in their entirety and for all purposes.--

*In The Claims:*

*A 3*

Please cancel claims 1 to 32, without prejudice.

*A 4*

Please add the following new claims:

--33. A method of stimulating the immune system, the method comprising administering to *[the subject]* *[LAB]* an effective amount of a compound, wherein the compound is derived from an extract from the sap of a species of *Euphorbia*, wherein the compound

(a) is extractable from the *Euphorbia* sap in the presence of about 95% v/w ethanol,

(b) has cell inhibiting or retarding activity which is neither destroyed by acetone nor by heating at about 95°C for about 15 minutes, and

from  
the  
comps  
recited  
in  
clms  
74-77

74. The method of claim 33, wherein the compound comprises a composition selected from the group consisting of a angeloyl-substituted ingenane, a angeloyl-substituted ingenane derivative and a pharmaceutically acceptable salt of a angeloyl-substituted ingenane or a angeloyl-substituted ingenane derivative.

75. The method of claim 74, wherein the angeloyl-substituted ingenane derivative comprises an ester derivative.

76. The method of claim 74, wherein the angeloyl-substituted ingenane derivative comprises an acetylated derivative.

77. The method of claim 74, wherein angeloyl-substituted ingenane is selected from the group consisting of a 20-O-acetyl-ingenol-3-angelate, an acetylated derivative of a 20-O-acetyl-ingenol-3-angelate and an ester derivative of a 20-O-acetyl-ingenol-3-angelate.

78. A method of stimulating the immune system, the method comprising administering to the subject an effective amount of at least two compounds, wherein the two compounds are derived from an extract from the sap of a species of *Euphorbia*, wherein the compounds

- (a) are extractable from the *Euphorbia* sap in the presence of about 95% v/w ethanol,
- (b) have cell inhibiting or retarding activity which is neither destroyed by acetone nor by heating at about 95°C for about 15 minutes, and
- (c) are capable of inhibiting the growth of at least one cell line selected from the group consisting of MM96L, MM229, MM220, MM537, MM2058, HeLa, B16, LIM1215, A549, MCF7, MCC16 and Colo16.

79. The method of claim 78, wherein the compounds are selected from the group consisting of a jatrophane, a jatrophane derivative, a pharmaceutically acceptable salt of a